INITIAL STUDY

PROJECT TITLE: Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Deport, Final		CALSTARS CODING: 14741 100657-47
PROJECT ADDRESS: Sierra Army Depot, former Honey Lake Demolition Range (Dry Lake Area)	CITY: Herlong	COUNTY: Lassen County
PROJECT SPONSOR: Unites States Army Sierra Army Depot	CONTACT: Mr. Michael Erickson BRAC Environmental Coordinator CALIBRE 11001 W. 120th Ave. #400 Broomfield, CO 80021	PHONE: Tel: 720.496.4671 Fax: 303.410.4551 www.calibresys.com

APPROVAL ACTION UNDER CONSIDERATION BY DTSC:

☐ Initial Permit Issuance ☐ Permit Renewal ☐ Permit Modification ☐ Closure Plan
☐ Removal Action Workplan ☐ Remedial Action Plan ☐ Interim Removal ☐ Regulations
☒ Other (specify): Engineering Evaluation/Cost Analysis (EE/CA)

STATUTORY AUTHORITY:

☐ California H&SC, Chap. 6.5 ☒ California H&SC, Chap. 6.8 ☐ Other (specify):

DTSC PROGRAM/ ADDRESS: Office of Military Facilities Site Mitigation and Brownfields Reuse Program 8800 Cal Center Drive, Sacramento, CA 95628	CONTACT: Francesca D'Onofrio, Hazardous Substance Scientist	PHONE: (916) 255-3603

PROJECT DESCRIPTION:
The Department of Toxic Substances Control (DTSC) has prepared this Initial Study to consider the approval of the Final Former Honey Lake Demolition Range –Dry Lake Area Engineering Evaluation/Cost Analysis (EE/CA). The proposed remedial actions will be conducted in compliance with the Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA), the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), and chapter 6.8, division 20, of the California Health and Safety Code. The EE/CA and risk assessment are incorporated by reference.

Location: The 4,485-acre Dry Lake Area of the Former Honey Lake Demolition Range (situated in the northwest region of the Sierra Army Depot) is northwest of the unincorporated community of Herlong in the Honey Lake area of Lassen County, California, approximately 40 miles southeast of Susanville, California and 55 miles northwest of Reno, Nevada. (See Figure 1).

The actions to be taken at this site are defined as a "project" according to the Public Resources Code (PRC) Section 21065, and the California Environmental Quality Act (CEQA) Guidelines Section 15378. This project is subject to the environmental review process by the lead agency (DTSC) as defined by the PRC Section 21080 and CEQA Guidelines Section 15063. This environmental review document has been prepared in accordance with these CEQA requirements.

The actions to be taken at the Former Honey Lake Demolition Range –Dry Lake Area are intended to investigate and remediate the surface and subsurface environment of potential hazards posed by Munitions and Explosives of Concern (MEC) to a level that does not pose a significant health risk for the intended future use of the property.

The proposed actions are intended to be the final remedy for this area. In order to facilitate the transfer of ownership of the Dry Lake Area parcel as open space from the United States government to the California State Lands Commission, the following activities will be undertaken:

- Removal of MEC. Where appropriate, soil sifting technologies, such as dig and haul or methods that perform digging and sifting as a single process, will be used. The depth of excavation will be pre-determined based on investigation findings.
- Treatment, by detonation in place, of MEC items that are too dangerous to move;
- MEC items that are safe to move will be temporarily stored on-site in a secured explosives magazine. At the completion of the project, items containing explosive residues will be transported (in the secured explosive magazines with establishment of a public safety exclusion zone) to an approved off-site treatment and disposal facility;
- Uncontaminated scrap metal will be transferred to a metal recycling facility;
- Prepare a report that will document the results of the clean-up activities, and;
- Implement institutional controls (ICs), such as land use restrictions, informational displays, and education programs to help minimize the possibility of future encounters with ordnance related materials.

The activities necessary to complete the action are expected to take between three and six months, and are anticipated to begin after the water recedes and the lake bed is dry enough to allow access for equipment and field personnel. Project activities are anticipated to be completed within approximately two years.

For the purposes of this document, any treatment of ordnance material by open detonation is limited to those items recovered during remedial activities conducted within the Former Honey Lake Demolition Range –Dry Lake Area.

Site History

Honey Lake is an intermittent body of water, comprising approximately 60,000 acres, whose status depends upon the amount of rain and snow fall over the course of several years. During periods of ample precipitation, the lake contains water with an average depth of approximately three feet. When there are periods of low rain and snow fall, the lake dries, exposing the lake bed. The area is currently inundated with water.

SIAD conducted demolition and burning of excess, unserviceable, and/or obsolete munitions following World War II. The first documented demolition activity on the dry Honey Lake bed occurred in 1945. Use of the lake bed for demolition and burning continued into the 1950's, possibly as late as 1958. Items to be destroyed were stacked together on the lake bed, explosive charges were attached to the munitions, and the items were detonated. The resulting explosion resulted in the destruction of the waste munitions, and the creation of large amounts of scrap metal that have been "kicked out" onto the lake bed and areas bordering the east shore of the lake (East Shore Area). However, some items may not have been destroyed entirely, and partially destroyed munitions and scrap metal containing residues of explosive material have been created as a result. It is possible that some items have not been destroyed at all. An exact inventory of items destroyed on the bed of Honey Lake is not available, but items are known to range from 20 millimeter ammunition to 2,000 pound general purpose bombs. The area of the lake bed impacted by former demolition activities, including the "kick out" of material, covers an area of approximately 4,486 acres. Approximately half of that area is contaminated with MEC wastes.

The Dry Lake Area has been divided into three sectors based on the investigation findings and are described as follows: the Open Burn/Open Detonation (OB/OD) Sector where open burn and open detonation activities have resulted in extensive contamination; the Buffer Sector where limited, shallow "kick-out" MEC items were found, and the Periphery Sector where only scrap metal was found (See Figure 2).

OB/OD Sector: The main OB/OD Sector occupies 1,726 acres in the central portion of the Dry Lake Area. Additionally, there is one, 11-acre non-contiguous area immediately west of the main OB/OD Sector that is considered part of the OB/OD Sector. These two parcels bring the total acreage of the OB/OD Sector to 1,737 acres. This sector was identified as containing a large number of disposal pits based on data from the airborne geophysical mapping survey and was found to contain a high density of Discarded Military Munitions (DMM) and Munitions Debris (MD)-related items by the land-based geophysical survey and intrusive sampling. The subsurface anomalies within this sector were so dense in some areas that twelve 100' by 100' grids had to be investigated by using heavy equipment to cut trenches through the areas where individual subsurface anomalies could not be identified. One hundred thirty-eight DMM items and approximately 10 tons of MD and non-MD metal items were recovered from the OB/OD Sector as a result of the EE/CA investigation.

Buffer Sector: The Buffer Sector occupies 756 acres of the Dry Lake Area and surrounds the OB/OD Sector on three sides. This sector was identified as containing DMM and MD items that are believed to have been "kicked-

out" from the demolition pits associated with the OB/OD Sector. Two DMM items and approximately 500 pounds of MD and non-MD metal items were recovered from the Buffer Sector as a result of the Dry Lake Area EE/CA investigation.

Periphery Sector: The Periphery Sector occupies 1,993 acres of the Dry Lake Area and borders three sides of the Buffer Sector. This sector was identified as an additional "buffer" between the area known to be contaminated with DMM and the clean area on Honey Lake transferred to the Honey Lake Conservation Team (HLCT). This sector contains some MD items believed to have been "kicked-out" from the demolition pits associated with the OB/OD Sector. One hundred five (105) DMM items were recovered from a surface dumpsite within the Periphery Sector and are believed to represent a single event rather than a common disposal practice. However, due to the distance from the demolition pits, no other DMM items were recovered from the Periphery Sector. Additionally, less than 500 pounds of MD and non-MD metal items were recovered from the Periphery Sector as a result of the Dry Lake Area EE/CA investigation.

Recommended Remedial Action (See Figure 3)
Dry Lake Area: Institutional Controls (ICs) will be implemented for all sectors in the Dry Lake Area. The ICs will include informational display cases, community awareness/education, informational pamphlets, and a Land Use Covenant to restrict future land use. Additionally, 5-year reviews will be conducted for the Dry Lake Area to ensure that the munitions response actions implemented at the Dry Lake Area remain effective in the protection of human health and safety and the environment. Please also refer to Section 9, Land Use, for additional information.

OB/OD Sector: For the 1,737 acres OB/OD Sector the remedy selected for a munitions response is the subsurface removal of MEC to 1-foot below ground surface (bgs). This remedial action will remove those MEC items that could be accessed by individuals that visit the site, therefore providing a substantial level of protection of public health and the environment. Although a Time Critical Removal Action (TCRA) was conducted over this area in 2003, implementing this remedy will remove any new MEC items that may have been exposed by wind and water erosion since the TCRA. This remedy will also add an extra level of risk reduction by clearing all MEC to 1-foot bgs. Additionally, this remedy exceeds Department of Defense (DOD) 6055.9 Ammunition and Explosives Safety Standard for open space land use. Finally, this remedy will physically remove remaining MEC hazards that might be accessible to the public under an open space land use. However, no MEC removal based on aboveground-deployed detection methods can be 100% effective in removing all MEC at this site; therefore, should intrusive activities be necessary below the 1-foot clearance depth, such activities will be conducted under construction support from the U.S. Army Corps of Engineers (USACE). The final remedy for this sector will include ICs (see discussion above) that are considered sufficiently protective of the public and the environment.

There were 131 acres within the OB/OD Sector that fell outside of the boundary of the TCRA conducted in 2003. A separate surface removal of MEC will not be conducted because surface MEC in this area will be removed during the implementation of the remedy of subsurface removal of MEC to 1-foot bgs.

Buffer Sector: Only 2 DMM items and 124 MD items were recovered from the Buffer Sector as a result of the EE/CA investigation. Therefore, a surface removal of MEC remedy will be implemented over the 756 acre Buffer Sector. Surface Removal of MEC comprises locating and removing ordnance from the ground. Teams of unexploded ordnance (UXO)-qualified personnel use visual identification to search for and remove ordnance. The surface removal would be conducted by establishing a system of grids within which a series of sweep lanes would be placed. These lanes are typically 5 feet in width or narrower. Although a TCRA was conducted over the majority of this area in 2003, implementing this remedy will remove any new MEC items that may have been exposed by wind and water erosion since the TCRA and will clear those areas outside the TCRA boundary.

MEC recovered during the surface removal would be detonated in place if it were not safe to move to an on-site area specifically designated for destruction of recovered MEC items. Surface removal of MEC and the detonation of MEC would occur within exclusion zones, which vary in size, depending on the maximum fragmentation range of the MEC items recovered. MD recovered during the surface clearance would be turned in to the nearest Defense Reutilization Marketing Office (DRMO), or taken off site and turned in to an authorized scrap metal recycler. The final remedy for this sector will include ICs (see discussion above) that are considered sufficiently protective of the public and the environment.

Periphery Sector: Although 105-40 mm projectiles were recovered at a single location within the Periphery Sector, the EE/CA and TCRA data indicated that this was an isolated event and not indicative of the ordnance demilitarization practices implemented at the Former Honey Lake Demolition Range, including the Dry Lake Area. Only nine MD and no DMM items, with the exception of the aforementioned 105-40 mm projectiles, were recovered from the Periphery sector. However, this sector is considered to have a "lower" MEC hazard due to

the possibility that the area could be accessed by the general public when the lake bed is dry. The final remedy for this sector will include ICs (see discussion above) that are considered sufficiently protective of the public and the environment.

For additional information, please also refer to Section 7, Hazards and Hazardous Materials.

References Used:
American Technologies, Inc., Final Site-Specific Final Report (Revision 1), Ordnance and Explosive (OE) Response Action, Sierra Army Depot, East Shore Honey Lake BRAC Parcels, Herlong, California, March 21, 2005.
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

ENVIRONMENTAL IMPACT ANALYSIS:

1. Aesthetics

Project activities likely to create an impact:
None.

Description of Baseline Environmental Conditions:
The Former Honey Lake Demolition Range –Dry Lake Area is located along the northwestern boundary of Sierra Army Depot (SIAD), within the lakebed of Honey Lake. The dry lakebed is devoid of vegetation as it is periodically covered with water. However, during prolonged dry periods, desert salt grass begins encroaching on the lakebed typically on the eastern shoreline. This east shore area also consists of sagebrush/rabbit brush/greasewood plant communities. Some portions of the area have been used for ordnance testing and have been subjected to clearing and grading activities, and have little or no vegetation. The majority of the area is lakebed.

This project will have no significant impact upon the aesthetics of the area nor will any structures be constructed or used during the remedial activities that will create light or glare. The project area is isolated and remote, and contains no scenic vistas or outstanding scenic resources. The project will not degrade the visual character of the area. For these reasons, no further analysis is deemed necessary.

Analysis as to whether or not project activities would:

a. Have a substantial adverse effect on a scenic vista.

   Impact Analysis: As stated above, no further analysis is deemed necessary.

   Conclusion:
   ☐ Potentially Significant Impact
   ☐ Potentially Significant Unless Mitigated
   ☐ Less Than Significant Impact
   ☒ No Impact

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.

   Impact Analysis: As stated above, no further analysis is deemed necessary.

   Conclusion:
   ☐ Potentially Significant Impact
   ☐ Potentially Significant Unless Mitigated
   ☐ Less Than Significant Impact
   ☒ No Impact

c. Substantially degrade the existing visual character or quality of the site and its surroundings.

   Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

d. Create a new source of substantial light of glare that would adversely affect day or nighttime views in the area.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

2. Agricultural Resources

Project activities likely to create an impact:
None.

Description of Baseline Environmental Conditions:
The Former Honey Lake Demolition Range –Dry Lake Area is located along the northwestern boundary of Sierra Army Depot (SIAD), within the lake bed of Honey Lake. The dry lakebed is devoid of vegetation as it is periodically covered with water. However, during prolonged dry periods, desert salt grass begins encroaching on the lakebed typically on the eastern shoreline. This east shore area also consists of sagebrush/rabbit brush/greasewood plant communities. Some portions of the area have been used for ordnance testing and have been subjected to clearing and grading activities, and have little or no vegetation. The majority of the area is lake bed.

This project area is not used for agricultural purposes; the proposed remedial activities will have no impact upon agricultural resources since there are none at the site. Vegetated areas along the upland east shore of the lake are sparse and not of high quality, although cattle have been known to wander into the area and graze along the shoreline. The project area is limited to the dry lake bed and will not impact the upland east shore area. The project consists of clearance of MEC items only and does not involve the conversion of any farmland to non-agricultural use. For these reason, further analysis is deemed unnecessary.

Analysis as to whether or not project activities would:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Conflict with existing zoning or agriculture use, or Williamson Act contract.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

3. Air Quality

Project activities likely to create an impact:
•Investigation by excavation of individually identified items and larger areas with potentially higher concentrations of subsurface munitions-type items
•Treatment of collected items, that may include in-place detonation within a blast chamber or within a pit,
•Transportation of equipment and materials

Description of Baseline Environmental Conditions:
Sierra Army Depot is located in Lassen County, which is part of the Northeast Plateau Air Basin. Ambient air quality standards for Lassen County are regulated by both federal and State law with the purpose of protecting public health and welfare. Both the Clean Air Act and the California Clean Air Act set thresholds for six criteria pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, inhaled particulate matter (PM_{10}), and airborne lead. An area exceeding the standards of a criteria pollutant is designated as a "non-attainment area" for that pollutant while an area complying with the standards is an "attainment area." An area of unknown air quality status may be designated as "unclassified." Lassen County is in attainment or is unclassified for all State and federal air quality parameters, except for inhaled particulate matter (PM_{10}), which is classified as non-attainment.

During the excavation of munitions debris and discarded military munitions from the Dry Lake Area, the possibility exists that a munitions item will be excavated that is unsafe to move. Sierra Army Depot's Title V Operating Permit forbids the treatment of munitions by Open Burn/Open Detonation. An exception to this permit requirement applies to munitions that have been classified as unsafe. Munitions determined to be unsafe to move or transport will be treated by detonation in-place once required notifications are provided to Lassen County APCD and DTSC.

The climate of the Honey Lake area is arid, with low relative humidity and little precipitation. Daytime temperatures typically average 85 degrees Fahrenheit (°F) in the summer and 40°F in the winter. Annual precipitation averages approximately 6 inches, and occurs mostly during the winter, in the form of both rain and snow. Typically, daytime winds blow eastward and average about 6 miles per hour (mph), while nighttime winds are often variable and light. However, wind gusts of up to 90 mph have been measured.

Analysis as to whether or not project activities would:

a. Conflict with or obstruct implementation of the applicable air quality plan.

Impact Analysis: The primary removal technique is proposed to be mechanized removal. Mechanized removal consists of physically scraping and sifting the top 1-foot layer of the lakebed using an earth mover. Mechanized removal could generate significant fugitive dust. Open detonation of MEC items would also generate small quantities of dust. Because of the potential for fugitive dust and wind erosion, dust control measures will be taken to both minimize fugitive dust and prevent wind erosion of the treated surface. Dust control measures may include using

water, tarps or other dust suppressant materials. According to information provided by the Lassen County Air Pollution Control District (APCD) control officer, these measures will comply with the Lassen County APCD fugitive dust rules. See Reference list at the end of this section for Lassen County APCD contact information. No long-term air pollution would be caused by the proposed activities. The gaseous products formed by open detonation treatment are normal constituents of the atmosphere and are readily dispersed. No measurable effect on air quality would result from the explosive destruction of ordnance within the project area. Therefore, the project related impacts to air quality would be short-term and insignificant.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Analysis: The primary removal technique is proposed to be mechanized removal. Mechanized removal consists of physically scraping and sifting the top 1-foot layer of the lakebed using an earth mover. Fugitive dust may be generated when mechanized removal equipment is used. The use of engineering controls, such as water, tarps or other dust suppressant materials, will also be used to minimize the creation of dust when mechanized equipment is used. In addition, under windy site conditions, generation of dust will be kept at a minimum. As stated previously, these dust control measures will comply with the Lassen County APCD fugitive dust rules. No long-term air pollution would be caused by the proposed activities.

During the excavation of munitions debris and discarded military munitions from the Dry Lake Area, the possibility exists that a munitions item will be excavated that is unsafe to move. Sierra Army Depot's Title V Operating Permit (for stationary sources) precludes the treatment of munitions by Open Burn/Open Detonation. An exception to this permit requirement applies to munitions that have been classified as unsafe. Munitions determined to be unsafe to move or transport will be treated by detonation in-place once required notifications are provided to Lassen County APCD and DTSC.

Emissions from open detonation activities are not expected to be substantial, due to the limited size and number of treatment events. The soils of the Dry Lake Area will most likely be slightly moist to dry during the proposed remedial activities, which can reduce the amount of dust created by any open detonation activities. Engineering controls, such as the use of sandbags or wetting of the soil, will be used to minimize the generation of dust.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Analysis: Lassen County is in non-attainment status for inhalable particulate matter (PM_{10}). Excavation activities will include dust control measures in compliance with Lassen County APCD fugitive dust rules and will not generate significant amounts of dust. Dust generation will be minimal for excavation conducted solely with hand tools. Fugitive dust may be generated when mechanized removal equipment is used. The use of engineering controls, such as water, will also be used to minimize the creation of dust when mechanized equipment is used. In addition, under windy site conditions, generation of dust will be kept at a minimum. As stated previously, these dust control measures will comply with the Lassen County APCD fugitive dust rules. Further, Lassen County APCD was contacted on May 10, 2006, to ensure that these proposed project control measures for dust suppression would meet the District's standards. In an electronic mail from Lassen County APCD, the APCD contact verified that by "control [of] fugitive dust by any and all means including water, tarping, dust suppressant materials or other available means will meet the requirements of the District." See Reference list at the end of this section for Lassen County APCD contact information.

Emissions from open detonation, if required, will not result in a cumulatively considerable net increase in any criteria pollutant, including PM_{10}. Emissions from any open detonation activities would not be controlled, but would be relatively small due to the limited size and number of individual munitions that may be found during the remedial

action that require destruction in place. The exact number of these individual munitions requiring detonation in place is unknown at this investigative phase, but it is anticipated to be a small number. The area was previously investigated in 2003 under the TCRA; consequently, this diminishes the number of munitions that would require in-place detonation. The soils of the Dry Lake Area will most likely be slightly moist to dry during the proposed remedial activities, which may reduce the amount of dust created by any open detonation activities.

Restoration activities anticipated will be the compaction of the post-removal area to minimize wind erosion across the dry, flat lakebed. Compaction will also enhance the dust control measures stated previously.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

d. Expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis: The project area is isolated, and uninhabited for a distance of at least 5 miles in any direction, and is unlikely to expose sensitive receptors to substantial pollutant concentrations. Please also refer to the response in items b and c, above.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

e. Create objectionable odors affecting a substantial number of people.

Impact Analysis: Excavation activities will not create objectionable odors. The potential treatment of MEC items is not expected to create any objectionable odors. The project area is isolated, and uninhabited for a distance of at least 5 miles in any direction, and, therefore, would not affect a significant number of people.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

f. Result in human exposure to Naturally Occurring Asbestos (see also Geology and Soils, f.).

Impact Analysis: The project area is not located in a geologic formation at contains naturally occurring asbestos (NOA).

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
DTSC, Initial Study for Former Honey Lake Demolition Range: East Shore Area Engineering Evaluation/Cost Analysis, Sierra Army Depot, Herlong, California, 2004.
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.
Electronic Mail from Kenneth R. Smith of Lassen County Air Pollution Control District to Charles Ridenour, DTSC, May 10, 2006.
Lassen County Air Pollution Control District (APCD) List of Current Rules, California Air Resources Board Web Site, April 27, 2006.

4. Biological Resources

Project activities likely to create an impact:
•Investigation by excavation of individually identified items and larger areas with potentially higher concentrations of subsurface munitions-type items
•Treatment of collected items, that may include in-place detonation within a blast chamber or within a pit,
•Transportation of equipment

Description of Baseline Environmental Conditions:
Honey Lake is a shallow, alkaline lake with no outlet. The lake is primarily supplied by surface flows from the Susan River, which enters the lake at the north shore, and intermittent Long Valley Creek, which enters from the south. Other inflows originate from thermal springs to the north and northeast. Lake levels may fluctuate widely from season to season and from year to year. During drought years, lake levels are greatly reduced with an "Island" area, or the lake may become completely dry, leaving a dry lakebed adjacent to the East Shore of Honey Lake and the Main Depot. Historically, the Army has used the dry lakebed for operations, including the disposal of surplus ordnance by open detonation or burning. SIAD and Honey Lake are located in Honey Lake Valley, a gently sloping alluvial basin surrounded by steep, rugged mountains and arid hills.

Most of the listed species that are present near Honey Lake and the SIAD are not year-round occupants; however, the Carson wandering skipper does occupy habitat near Honey Lake and the year round. The wandering skipper has very specific habitat requirements, completes its life cycle within that habitat, and has a small total population.

The Dry Lake Area and surrounding areas support a number of biological resources. The following paragraphs provide detailed information regarding vegetation, wildlife, and sensitive species that occur on or near the Dry Lake Area (See Attachment C). This list does not include state-only species. Those species are discussed with California Department of Fish and Game (CDFG) Rarefind database information later in this discussion.

Vegetation
Many plant species commonly found near the Dry Lake Area are members of the goosefoot family (*Chenopodiaceae*), which is tolerant of the alkaline soils present in the area. Vegetation in the area is principally composed of two types of shrub communities. The dominant species associated with these two communities are either common sagebrush (*Artemisia tridentata*) or greasewood (*Sarcobatus vermiculatus*).

Common sagebrush is the primary species in the south region of the Depot. Grasses, including cheatgrass (*Bromus tectorum*), are abundant in openings between shrubs. Rubber rabbitbrush (*Chrysothamnus nauseosus*) is common along the roads and in disturbed areas. Developed areas in the south region of the Depot have generally been landscaped. Trees in these areas are commonly Russian olive (*Elaeaganus angustifolius*) and Siberian elms (*Ulmus pumila*).

Areas within the north region of the Depot are dominated by the second type of scrub community, with greasewood as its most widespread shrub. Shadscale (*Atriplex confertifolia*) is another component of this community but becomes less prominent closer to the lakeshore. Understory components consist of a number of weedy forbs, including peppergrass (*Lepidium perfoliatum*), halogeton (*Halogeton glomeratus*), bush seepweed (*Suaeda moquinii*), red sage (*Kochia americana*), tansy mustard (*Descurainia pinnata*), and tumble mustard (*Sisymbrium altissimum*). Closer to the lakeshore there are open areas of grasses and forbs without shrub cover. Common grasses include cheatgrass, Great Basin wild rye (*Lemus cinereus*), and squirrel tail (*Elymus elymoides*). Near the shoreline of Honey Lake, the greasewood community diminishes. Vegetation in this area consists primarily of desert salt grass (*Distichilis spicata*), a wetland species common to alkaline areas (Hickman, 1993). Other species occurring in this general area include buttercup (*Ranunculus cymbalaria*), thistles (*Cirsium* spp.), mullein (*Verbascum* sp.), and rush (*Juncus* spp.).

The dry lakebed is devoid of vegetation; it does not contain trees, other vegetative species, or scrubs as it is periodically covered with water. However, during prolonged dry periods, desert salt grass begins encroaching on the lakebed typically on the eastern shoreline.

Wildlife
The Dry Lake Area and surrounding areas provide a productive habitat for several raptor, upland game bird (native and nonnative), waterfowl, and migratory bird species.

Honey Lake and the marshy vegetation along the lake edge provide habitat for numerous waterfowl and shorebirds. There are 17 species of duck that migrate through, nest or winter at Honey Lake. Canada geese (*Branta canadensis*) and American white pelicans (*Pelecanus erythrorhynchos*) are a common occurrence. Other shorebirds known to occur include gulls (*Larus* spp.), killdeer (*Charadrius vociferus*), and yellowlegs (*Totanus* sp.).

American kestrels (*Falco sparverius*), red-tailed hawks (*Buteo jamaicensis*), northern harriers (*Circus cyaneus*), and golden eagles (*Aquila chrysaetos*) are often spotted at the Depot.

Mammalian predators include gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), long-tailed weasel (*Mustela frenata*), badger (*Taxidea taxus*), and bobcat (*Lynx rufus*).

The Depot also supports large herbivores, including pronghorn antelope (*Antilocapra americana*) and mule deer (*Odocoileus hemionus*). A herd of wild horse (*Equus caballus*) has also been sighted on a regular basis near the lakeshore.

Sensitive Species
Attachment C lists threatened, endangered or special status species known to be present (or potentially present) in the vicinity of the Dry Lake Area.

In August 2002, the Carson wandering skipper was listed under the Federal Endangered Species Act of 1973. The Carson wandering skipper's juvenile host plant is desert salt grass (*Distichlis spicata* var. *stricta*), typically found in alkaline soils near wetland areas. The vegetative community along the east shoreline of Honey Lake and adjacent areas is an ideal habitat for the desert salt grass. These shoreline areas are also potential habitat for the Carson wandering skipper. Please also refer to the Baseline Environmental Conditions above.

During the 2002 flight season (June through July), U.S. Fish and Wildlife Service (USFWS) protocol surveys were conducted within the East Shore BRAC Parcel for the Carson wandering skipper. The East Shore BRAC Parcel is located adjacent to the east side of the Dry Lake Area. These surveys revealed abundant presence of salt grass in association with adequate nectar sources. These surveys, however, indicated that the potential habitat was unoccupied. No Carson wandering skippers were sighted within the East Shore BRAC Parcel even though individuals were seen within the Honey Lake Basin, albeit outside Depot boundaries. In October 2002, the Depot submitted the results of the survey to the Sacramento office of USFWS seeking concurrence that DMM investigation, removal activities, and the subsequent property transfer (of the East Shore Parcel) would pose no threat to the species. USFWS responded with a finding of "not likely to adversely affect" the species. The USFWS further stated that because the majority of the proposed ordnance and explosive response actions would take place on the mud flats of the lake bed (which is devoid of salt grass), that these actions "will not affect the host plant" for the Carson wandering skipper.

Two federally listed threatened species have the potential to be present at the Dry Lake Area. The bald eagle (*Haliaeetus leucocephalus*) may forage the Honey Lake areas during the winter. The western snowy plover (*Charadrius alexandrinus nivosus*) is known to occur in sparsely vegetated alkali flats such as Honey Lake. Snowy plovers dig shallow nest scrapes in flat areas and rely primarily on insects and water for food. During the winter months, snowy plovers migrate south; therefore, they are likely only to be present in this area during the spring and summer for nesting.

The American peregrine falcon (*Falco peregrinus anatum*) is State listed as endangered and is a federal species of concern. It may potentially hunt over portions of the Depot, but does not appear likely to nest in the area due to lack of suitable cliff sites. Two species listed by the state of California as threatened may occur within the Dry Lake Area and surrounding areas. Swainson's hawk (*Buteo swainsoni*) may use the area as hunting habitat during breeding season, although they typically prefer open prairies and rangelands. The greater sandhill crane (*Grus canadensis tabida*) commonly nests in meadows around lakes and has been recorded within the area.

There are several species of concern that are known to occur within the Dry Lake Area and surrounding areas. The burrowing owl (*Athene cunicularia*) is a ground nesting bird that has been identified throughout the Depot, with a higher occurrence at Honey Lake near Wendel. Burrowing owls often use ground squirrel burrows for nesting. Owls areas found in dry, level, open terrain, such as prairie, plains, desert, and grassland with low height vegetation for foraging and available perches such as fences, utility poles, posts, or raised rodent mounds. The abundance of available burrows seems to be a critical habitat requirement. Favored locations are those in relatively sandy sites and areas with low vegetation around the burrows. It has been sighted 1.5 miles northeast of Wendel in the Honey Lake Valley in 1997. White-faced ibis (*Plegadis chihi*) and tri-colored blackbird (*Agelaius tricolor*), both federal species of concern, are known to occur on the Depot, but are likely to be present only in the spring and summer. They nest and forage in freshwater marsh habitats.

Both the mountain plover (*Charadrius montanus*) and northern goshawk (*Accipiter gentilis*) are federal species of concern that may migrate through the Depot; however, suitable habitat for either of these species is not available within the Dry Lake Area. Therefore, these two species were unlikely to be affected by these proposed remedial activities.

There are seven species of bats listed as species of concern that are known to be present on the Depot. Bats are nocturnal, and any roosting areas that may be present on the Depot are not disturbed by these proposed remedial activities.

The northern sagebrush lizard (*Sceloporus graciosus graciosus*) is the only sensitive reptile that may occur at the Depot, but it is not listed as threatened or endangered by the State of California or federal agencies. This species is most often associated with sagebrush.

A June 16, 2006 California Natural Diversity Database (i.e., Rarefind Database) report for the Herlong, Wendell, and Wendell Hot Springs quadrants was reviewed. The report lists two plant species not previously discussed that may be found within the Depot or the surrounding area. The first species, Raven's lomatium (*Lomatium ravenii*), a California Native Plant Society (CNPS) List 2 plant, may be found on open, slightly alkaline flats such as the dry lakebed region of Honey Lake. Isolated populations were found northeast of Herlong in 1980 in the "Island" area, which is south of the project area. Second, Eel-grass pondweed (Potamogeton zosteriformis), a CNPS List 2 plant, which occurs in lakes ponds and streams, was last sighted in the vicinity of the Amedee hot springs on the east side of Honey Lake in 1997.

Other species listed in the June 16, 2006 Rarefind Database report for the Herlong, Wendell, and Wendell Hot Springs quadrants not previously discussed include: the California gull (Larus californicus), a state species of special concern, has been found in littoral waters, sandy beaches, tidal mud flats, marshes, and lakes. This bird was sighted in the Hartson Reservoir in the Honey Lake State Wildlife Area in 1989. The Long-eared owl (Asio otus), a state species of special concern, nests in riparian bottomlands ground to tall willows and cottonwoods, and in belts of live oak paralleling stream courses. The owl requires wooded areas for daytime roosting with adjacent foraging areas. It was observed in Wendel Canyon, approximately 3 miles northeast of Wendel and at the Depot in 1989.

Analysis as to whether or not project activities would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

   Impact Analysis: The specific timeframe for conducting the remedial activities is not currently known due to changing water levels in the lakebed. Once field work begins (i.e., when the lakebed is dry enough to support field operations), sensitive areas will be avoided when possible by conducting activities during the non-breeding season (i.e., not during the fall and winter months). The project could take up to two years to implement due to fluctuating water conditions within the Dry Lake Area. The area is currently inundated with water, and the only vegetation occurs on the eastern side (the East Shore BRAC Parcel).

   On December 30, 2002, the USFWS issued a letter to Sierra Army Depot with a determination that ordnance and explosives response actions within the East Shore EE/CA study area were not likely to adversely affect the Carson wandering skipper or its habitat. In that letter, the USFWS further stated that because the majority of the proposed ordnance and explosive response actions would take place on the mud flats of the lake bed (which is devoid of salt grass), that these actions "will not affect the host plant" for the Carson wandering skipper.

   The project area is disturbed by previous operational and clearance activities. If necessary, the following work practices can be implemented during remedial activities to minimize impacts on biological resources:
   - Conduct pre-surveys to avoid sensitive resources;
   - Brief workers: Prior to commencement of field activities, all on-site personnel will be briefed on health and safety issues and the ecology of sensitive species in the area. Methods for minimizing potential impacts to these species will form an integral part of the on-site training;
   - Identify all resources;
   - Provide full-time, and on-call, on-site monitoring;
   - Educate field personnel about environmental concerns;
   - Incorporated into the intrusive MEC removal and potential MEC demolition activities will be sensitive-area and sensitive-species mitigation by avoidance when possible. Disturbance of nesting and breeding activities will be avoided by restricting project activities to the non-breeding season. Pre-project surveys will be conducted to ensure that wetlands impacts are kept to a minimum. Any impacts to wetlands will be mitigated as required by the nationwide wetland permit (i.e., a federal Clean Water Act Section 404 permit) (see item c. below):
   - Mark resource areas to be avoided to avoid risk to individual species;
   - Minimize vehicle impact to vegetation across the terrain through use of a single site entry and exit pathway;
   - Backfill all excavations and return excavated areas to natural contours following the EE/CA remediation project. Erosion control for wind and water effects will be employed using standard construction practices, such as wetting of soils, tarps, etc.

No riparian land, river, stream, watercourse, and wetland under state and federal jurisdiction have been identified at the Dry Lake Area. In addition, USFWS determined that that because the majority of the proposed ordnance and explosive response actions would take place on the mud flats of the lakebed (which is devoid of salt grass habitat of the Carson wandering skipper), that these actions "will not affect the host plant" for the Carson wandering skipper. No threatened or endangered species have been documented at the site of the Dry Lake Area, although some federal and state endangered and threatened species have been noted around Sierra Army Depot and the eastern shore of Honey Lake. Surveys and project control measures will be implemented to ensure that if biological resources, including any birds that use the area for migration, foraging, nesting, or breeding, are encountered, actions will be taken for their protection. As stated previously, the following birds will be surveyed for prior to beginning any field activities during the spring and summer breeding and nesting periods: snowy plovers, white face ibis, and the tri-colored blackbird. As stated above, activities will be conducted when the lake bed is dry.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis: It is anticipated that the proposed activities will not have any adverse effects upon riparian habitat or other sensitive areas. Site surveys, the implementation of breeding season (spring and summer months) avoidance, and the work practices stated in a. above can avoid substantial impacts to biological resources. The temporary, time-limited nature of the activities in this area will not have a significant affect on nearby sensitive habitats or communities.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact Analysis: Please refer to the response in item a. above. The U.S. Army Corps of Engineers (USACE), Sacramento District has determined that activities associated with the project could be conducted under a nationwide wetlands permit. Dredging will not be conducted as part of this project. According to information obtained from the USACE's web site the U.S. Army operates under a nationwide general permit and is not required to obtain permits. Further, Appendix A "Index of the 1996 Nationwide Permits and Conditions" states under section 38:

"NATIONWIDE PERMITS
38. Cleanup of Hazardous and Toxic Waste. Specific activities required to effect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority provided the permittee notifies the District Engineer in accordance with the "Notification" general condition. For discharges in special aquatic sites, including wetlands, the notification must also include a delineation of affected special aquatic sites, including wetlands. Court ordered remedial action plans or related settlements are also authorized by this NWP. This NWP does not authorize the establishment of new disposal sites or the expansion of existing sites used for the disposal of hazardous or toxic waste. Activities undertaken entirely on a CERCLA site by authority of CERCLA as approved or required by EPA, are not required to obtain permits under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act. (Sections 10 and 404)."

Activities in wetlands areas within, and adjacent to, the project area will be avoided to the greatest extent practical. It is not anticipated that wetlands will be impacted, thus restoration of any wetlands is not anticipated.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated

☒ Less Than Significant Impact
☐ No Impact

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact Analysis: There are no resident or migratory fish present within the project area. The project activities will not interfere substantially with migratory wildlife corridors or native wildlife nursery sites. Although few migratory birds use parts of the Honey Lake area for habitat and foraging, remedial activities will be performed to protect the birds outside the breeding season (i.e., activities will be conducted during the late summer, fall and early winter months) and when the lake is dry. Activities will be conducted consistent with a nationwide wetlands permit as mentioned above.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Analysis: There are no local policies or ordinances protecting biological resources applicable to the project area.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Analysis: There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans applicable to the project area.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:

California Department of Fish and Game, Natural Diversity Database Rarefind, Herlong, Wendell, and Wendell Hot Springs Quadrants, June 16, 2006.
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.
Letter, "Informal Endangered Species Consultation of the Proposed Transfer of the East Shore Parcel, Lassen County, California, from the Sierra Army Depot to the County of Lassen, from U.S. Fish and Wildlife Service (Sacramento Office) to Colonel Paul R. Plemmons (Sierra Army Depot), December 9, 2002.
Letter, "Informal Endangered Species Consultation of the Proposed Ordnance and Explosive Response Actions on the Sierra Army Depot, Lassen County, California, from U.S. Fish and Wildlife Service (Sacramento Office) to Colonel Paul R. Plemmons (Sierra Army Depot), December 20, 2002.
USACE, Sacramento District, Final Environmental Assessment, Transfer of Honey Lake, Sierra Army Depot, Herlong, California, September 2003.
USACE Web Site: http://www.usace.army.mil/inet/functions/cw/cecwo/reg/nwpcond.htm
Owling.com: http://owling.com, June 28, 2006.

5. Cultural Resources

Project activities likely to create an impact:
•Investigation by excavation of individually identified items and larger areas with potentially higher concentrations of subsurface munitions-type items
•Treatment of collected items, that may include in-place detonation within a blast chamber or within a pit,
•Transportation of equipment

Description of Baseline Environmental Conditions:
Prior to initiation of previous EE/CA field investigations in the Dry Lake Area area, SIAD personnel contacted the California State Historic Preservation Officer (SHPO) concerning the possible existence of any on-site cultural resources and any requirements needed for these resources protection. No known cultural resources were identified within the Dry Lake project area. However, because cultural resources are present in adjacent properties (i.e., East Shore Area) all on-site field personnel will be briefed on the identification and protection of cultural resources should they be encountered during these proposed remedial activities.

Over the last 15 years, several cultural resource evaluations have been conducted for SIAD. In 1987, Cleland and Associates prepared *An Archaeological Overview and Management Plan for the Sierra Army Depot, Herlong, California.* At that time, 36 cultural resources sites had been identified from historical records and Depot personnel. However, no cultural resources sites were recorded on the installation. Subsequent archaeological surveys were conducted by Green (1992, 1993), Delacorte (1995), Kautz and Hutchins (1996), Elston (1997), and Intermountain Research (1997). In 1998, an additional study was conducted by Jones and Stokes Associates. The most recent survey was conducted in 2003 by Statistical Research Inc. (SRI) which conducted a cultural resources survey along the entire shore line of Honey Lake to identify all cultural resources prior to transfer of the lake to the Honey Lake Conservancy Team (HLCT). The results of this final survey found no known cultural resources within the lakebed area encompassing the Honey Lake Demolition Area.

A Sacred Lands inquiry was made to the Information from the Native American Heritage Commission (NAHC). The NAHC's. Sacred Lands File search, dated July 7, 2006, did not locate any record of cultural resources at the specific SIAD project site location. The NAHC did state that the project site is in close proximity to previously discovered prehistoric burial sites that could contain cultural resources, however. In addition, the Susanville Indian Rancheria has property near or adjacent to the site that has been obtained through Base Realignment and Closure proceedings. Three Native American tribal contacts were identified: Susanville Indian Rancheria, Greenville Rancheria of Maidu, and Honey Lake Maidu. These Native American tribal contacts are also on the public information contact lists for the SIAD Restoration Advisory Board's (RAB); therefore, these Native American contacts are notified each time an action that may have an affect on sacred lands is proposed or implemented at SIAD, such as the remedial action proposed in this Initial Study. The identified tribal contacts have been invited to comment on this initial study by letter.

Analysis as to whether or not project activities would:

a. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5.

Impact Analysis: Should cultural resources be identified during these proposed remedial activities, their locations within the project site will be marked so that they can be protected during this remedial action. A cultural resources monitor will be available for the duration of this remedial action to ensure protection of cultural resources. In the event cultural resources are discovered in the course of conducting project activities, consultation with the SHPO will be conducted as required under Section 106 of the National Historic Preservation Act (NHPA). If an unknown cultural resources site is discovered during this remedial action, work in that area will cease, and a qualified archeologist will be consulted on methods to avoid and preserve the cultural resources site. In addition, the following work practices may be used:

- Identify the area that contains the significant resource to be avoided and evaluate the resource for eligibility for National Register of Historic Places. Implement protection measures as appropriate;
- Document the resource through mapping and photo records;
- Conduct excavation to recover data in accordance with data recovery plan approved by the SHPO;
- Preserve to the extent possible, significant resources in place through identification by monitor and coordination with field crews prior to ground-disturbing activities;
- Collect, analyze, document, and archive a sample of data from the resource;
- Use a single site entry and exit pathway to minimize the impact of equipment and personnel transportation;
- Backfill all excavations and return excavated areas to natural contours following the remedial action. Erosion control for wind and water effects will be employed using standard construction practices, such as wetting of soils, tarps, etc.; and

- Mark the locations of any discovered cultural resources within the project site so that they can be protected during the remedial action.

Please also refer to the response to item d. below regarding human remains.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Cause a substantial adverse change in the significance of an archeological resource pursuant to 15064.5.

Impact Analysis: As stated in a. above, the project work in the area will cease if a cultural resource is encountered, and an archaeologist will be consulted before the project work continues, thereby avoiding a significant impact to an archeological resource.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact Analysis: As stated in items a. and b. above, measures will be taken to avoid impacts to historical resources.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

d. Disturb any human remains, including those interred outside of formal cemeteries.

Impact Analysis: No human remains areas have been identified in the Dry Lake Area. However, as stated in items a. and b. above, measures will be taken to avoid impacts to historical resources. If human remains are discovered, field work will stop and the Lassen County Sheriff-Coroner will be contacted and requested to be present during removal of human remains pursuant to Section 7050.5 of the California Health and Safety Code. If the remains are determined to be prehistoric, the Native American Heritage Commission will be notified.

In addition, if the remains found are Native American, procedures will be implemented as required by the Native American Graves Protection and Repatriation Act as follows:

- If Native American human remains or any associated grave goods are found, as described in the Native American Graves Protection and Repatriation Act, section 2(3), work will be stopped in the area of the discovery, and the U.S. Army Corp of Engineers Project Manager and the SIAD Environmental Director's Office will be notified immediately.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

6. Geology and Soils

Project activities likely to create an impact:
•Investigation by excavation of individually identified items and larger areas with potentially higher concentrations of subsurface munitions-type items
•Treatment of collected items, that may include in-place detonation within a blast chamber or within a pit,
•Transportation of equipment

Description of Baseline Environmental Conditions:
SIAD is located in the Honey Lake Valley, which slopes gradually from east to west from northwest Nevada into northeast California. Erosion and deposition, especially from wind, vulcanism, and sedimentation, have significantly shaped the topography of the valley. The valley is surrounded by the Diamond Mountains to the west; the Fort Sage and Virginia Mountains to the south; the Amedee and Skedaddle Mountains on the northeast; and Shaffer Mountain, Antelope Mountain, Susanville, Peak and Roop Mountain to the north and northwest. Honey Lake and the Main Depot are fairly flat areas, with elevations ranging from 3,986 feet mean sea level (msl) at the lake to 4,080 feet msl at the Main Depot. The topography is more varied in the open burning/open demolition area, which ranges in elevation from 4,020 to 5,560 feet msl in the Amedee Mountains. The topography of the Honey Lake area is relatively flat; topographic relief generally ranges from 1 to 3 feet south to north and 8 approximately 1 to 10 feet west to east across the Dry Lake Area.

The Sierra Nevada Mountain Range west of Honey Lake is composed mainly of Cretaceous-age granodiorite. Fault movement has displaced these rocks to depths as low as 5,000 feet below the present basin floor. The Honey Lake area is a seismically active zone. There are several active faults that run through the area, including the Honey Lake Fault. The Honey Lake Fault has produced magnitude 5.0 or greater earthquakes as recently as 1979. The volcanic rocks in the mountain ranges to the north are Miocene to Pleistocene in age. Erosion of the Sierra Nevada Mountain Range and the Modoc Plateau has deposited approximately 5,000 feet of interfingering unconsolidated and semi-consolidated sediments in the basin. The semi-consolidated sediments consist of eroded volcanic tuff and ash deposited in shallow lakes along with lacustrine and fluvial deposits of clay, silt, and minor amounts of sand. These sediments are overlain by several hundred feet of unconsolidated basin fill that consists of playa sediments and fine sands and silt.

Soils throughout the Depot are a combination of sand, silts, and clay, with minor amounts of coarse-grained sand and gravel. The soils are derived from eolian (wind-blown) sands, lacustrine (lake) deposits, and alluvium from granitic and volcanic sources. Soils found within the Dry Lake Area consist of playa sediments that are typically silty or sandy loams with high alkalinity.

Analysis as to whether or not project activities would:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42).
- Strong seismic ground shaking.
- Seismic-related ground failure, including liquefaction.
- Landslides.

Impact Analysis: The Honey Lake area is a seismically active zone. There are several active faults that run through the area, including the Honey Lake Fault. The Honey Lake Fault has produced magnitude 5.0 or greater earthquakes as recently as 1979. Shallow excavation of MEC by hand tools or by light mechanized equipment does not have the potential to cause a rupture on known earthquake faults. During detonation in place activities, all personnel must be at least 1250 feet from the location of any item to be disposed of by open detonation, avoiding any potential exposure to seismic-related ground failure, including liquefaction. Such occurrences will not be significant due to the small size of potential MEC needing treatment, and the distance to the nearest residences located 5 miles from the site. The amount of material to be treated in any one disposal event will be regulated to minimize potential adverse effects.

The topography of the Honey Lake area is relatively flat, therefore, the proposed project activities will not result in landslides. Also, there are no structures within the proposed remedial action area.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact

☐ No Impact

b. Result in substantial soil erosion or the loss of topsoil.

Impact Analysis: The investigation of surface and subsurface anomalies will be conducted by digging with hand tools or by use of light mechanized equipment. All excavations, once completed, will be backfilled to pre-existing grade conditions using the previously excavated soil. Consequently, there will be no loss of topsoil. In addition, restoration activities anticipated will be the compaction of the post-removal area to minimize wind erosion across the dry, flat lakebed. Compaction will also enhance the dust control measures stated previously.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Impact Analysis: The Dry Lake Area is characterized by soft lake sediments (which have a tendency to shrink and swell depending on the abundance or lack of moisture), relatively flat topography (with the exception of a few swales and berms), and a lack of vegetation. The lack of vegetation destabilizes the lake sediments, which increases the possibility that DMM in the shallow subsurface (0 inches to 6 inches bgs) could be exposed by natural events (e.g., frequent infilling of the lake due to precipitation, snow melt, and runoff; high winds and wind erosion; and earthquakes). DMM present in the shallow subsurface could possibly become exposed over time through repeated episodes of lake infilling, high winds, wave fluctuations (when the water level is high), and man-made disturbances along the surface of the dry lake bed (e.g., driving, off-roading).

There also exist multiple active faults that run through the lakebed and, therefore, the area is considered seismically active (i.e., unstable). Additionally, due to the remoteness of the site and because there are no plans for development within the Dry Lake Area, it is anticipated that there will be limited or no destabilization of lakebed sediments from personnel working in the area. In addition, by removal of MEC items and their safe destruction, risks posed by the unstable seismic condition will be reduced, if not eliminated, by the proposed remedial activities.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact Analysis: The site is not located on a building site and is not a potential hazard to life or property.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of water.

Impact Analysis: The site is not located on a building site and will not need to support septic tanks or other waste water disposal systems.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

f. Be located in an area containing naturally occurring asbestos (see also Air Quality, f.).

Impact Analysis: The project area is not located in a geologic formation that contains naturally occurring asbestos (NOA).

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:

Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

7. Hazards and Hazardous Materials

Project activities likely to create an impact:
•Investigation by excavation of individually identified items and larger areas with potentially higher concentrations of subsurface munitions-type items
•Treatment of collected items, that may include in-place detonation within a blast chamber or within a pit,
•Transportation of equipment and materials

Description of Baseline Environmental Conditions:
The Former Honey Lake Demolition Range –Dry Lake Area is located along the northwestern boundary of Sierra Army Depot (SIAD), within the lakebed of Honey Lake. The dry lakebed is devoid of vegetation as it is periodically covered with water. However, during prolonged dry periods, desert salt grass begins encroaching on the lakebed typically on the eastern shoreline. This east shore area also consists of sagebrush/rabbit brush/greasewood plant communities. Some portions of the area have been used for ordnance testing and have been subjected to clearing and grading activities, and have little or no vegetation. The majority of the area is lake bed.

SIAD conducted demolition and burning of excess, unserviceable, and/or obsolete munitions following World War II. The first documented demolition activity on the Honey Lake bed occurred in 1945. Use of the dry lake bed for demolition and burning continued into the middle 1950's, possibly as late as 1958. Items to be destroyed were stacked together on the lake bed, explosive charges were attached to the munitions, and the items were detonated. The resulting explosion resulted in the destruction of the waste munitions, and the creation of large amounts of scrap metal that have been "kicked out" onto the area surrounding the lake, which comprises the project area. However, some items may not have been destroyed entirely, and partially destroyed munitions and scrap metal containing residues of explosive material have been created as a result.

Hazardous wastes and hazardous materials potentially found in the Dry Lake Area may include the following items:

Military Munitions: Military munitions are defined as all ammunition products and components produced for or used by the armed forces for national defense and security, including ammunition products or components under the control of DOD, the Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents; chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges; and devices and components thereof. The term does not include wholly inert items; improvised explosive devices; and nuclear weapons, nuclear devices, and nuclear components, other than non-nuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) have been completed (10 U.S.C. 101(e)(4)(A) through (C)).

Materials Potentially Presenting and Explosive Hazard (MPPEH): MPPEH is defined as material potentially containing explosives or munitions (e.g., munitions containers and packaging material; munitions debris remaining after munitions use, demilitarization, or disposal; and range-related debris), or material potentially containing a high enough concentration of explosives such that the material presents an explosive hazard (e.g., equipment, drainage systems, holding tanks, piping, or ventilation ducts that were associated with munitions production, demilitarization, or disposal

operations). Excluded from MPPEH are munitions within DOD's established munitions management system and other hazardous items that may present explosion hazards (e.g., gasoline cans, compressed gas cylinders) that are not munitions and are not intended for use as munitions. This term is a very broad definition and may include nearly anything used or built by the military.

Munitions and Explosives of Concern (MEC): MEC distinguishes specific categories of military munitions that may pose unique explosives safety risks means: (a) UXO as defined in 10 United States Code [U.S.C.] 101(e)(5)(A) through (C); (b) DMM as defined in 10 U.S.C. 2710(e)(2); or (c) Explosive MC (e.g., trinitrotoluene [TNT], hexahydro-1,3,5-trinitro-1,3,5-triazine [RDX]), as defined in 10 U.S.C. 2710(e)(3), present in high enough concentrations to pose an explosive hazard.

Unexploded Ordnance (UXO): UXO is defined as military munitions that (a) have been primed, fuzed, armed, or otherwise prepared for action; (b) have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material; and (c) remain unexploded either by malfunction, design, or any other cause. There were no UXO items recovered at the Dry Lake Area during the TCRA or the EE/CA field investigation.

Discarded Military Munitions (DMM): DMM is defined as military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal. The term does not include UXO, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed consistent with applicable environmental laws and regulations.

Munitions Constituents (MC): MC is defined as any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions (10 U.S.C. 2710).

Munitions Debris (MD): MD is defined as nonhazardous remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.

Small Arms Ammunitions: Small arms ammunitions do not contain explosives but do contain propellant. Therefore, small arms ammunition (i.e., complete cartridge) is considered DMM. Cartridge cases and projectiles without the propellant are considered MD.

Non-MD: For purposes of this initial study, non-MD is defined as non-ordnance-related items (i.e., scrap) that include, but are not limited to wire, banding material, aluminum cans, trash, auto parts, horseshoes, and nails.

A total of 245 DMM were recovered during the Dry Lake Area EE/CA field investigation, including 40 DMM recovered as individual anomaly sources, 100 DMM recovered from trenches, and the 105 DMM recovered on the surface of the Periphery Sector. The MD item count does not include MD recovered from trenches as the amount of MD in trenches was not recorded as individual items but rather as an estimated weight (in pounds). The results of the distribution of DMM are laterally and vertically skewed because of the discovery of 105-40mm rounds found on the surface at a single location in the southern portion of the Periphery Sector. Of the remaining 140 DMM items discovered, 138 DMM items were recovered from the OB/OD Sector, 2 from the Buffer Sector and zero (0) from the Periphery Sector. A total of 115 DMM items (47 percent) were recovered on the surface (including the 105 DMM single find on the surface in the periphery sector), 29 DMM (12%) were found between 0 to 6 inches in depth, 1 DMM item was found between 6 and 12 inches in depth, and 100 DMM (41%) were found during trenching at a depth greater than 1-foot bgs.

The 105-40mm rounds recovered from the surface in the Periphery Sector were believed to be a single disposal event and not characteristic of the disposal practices carried on at the Former Honey Lake Demolition Range, since the TCRA (approximately 2,600 acres) and the activities associated with the EE/CA investigation failed to find other similar disposal conditions.

Of the 1,994 MD recovered, 646 (32.4 %) MD items were recovered from the surface, 1,259 (63.1%) MD items were recovered between 0 and 6 inches bgs, 89 (4.5%) MD items were recovered deeper than 6 inches bgs, and no MD was recovered below a depth of 12 inches. DMM and MD were recovered at depths up to 8 feet bgs in the deeper trenches. Trenches excavated in the 12 grids (100' X 100') revealed a large number of 75mm round that contained high explosive (HE) and white phosphorous (WP) residue, plus hundreds of projectiles considered MD, plus a pit on the lakebed containing 4.5 inches rockets that were first discovered at a depth of 8-feet bgs. This pit was not further investigated due to unstable soil condition surrounding the excavation.

Other munitions constituents: Since the primary purpose of the sampling was to evaluate worst-case situations and evaluate soil sampling results from a workers health and safety aspect, background values for metals would not be

relevant unless the established background level for a metal is above the U.S. Environmental Protection Agency (U.S. EPA) Region IX Preliminary Remediation Goal (PRG). As is often the case in the western U.S., the established background value for arsenic (3.18 mg/kg) is above the U.S. EPA Region IX PRG of 0.39 mg/kg. For all other metals the established background value is well below the U.S. EPA Region IX PRG.

It should be noted that several "salt" metals such as calcium, do not have established PRGs. Based on the results of the Dry Lake Area EE/CA sampling efforts and from a worker health and safety evaluation (with the exception of arsenic), metals do not appear to be contaminants of concern for this site. This is the case whether the metals are naturally occurring or potentially associated with military munitions demilitarization/disposal activities. Further studies would be necessary to establish a site-specific background level for arsenic because 6 of the 22 samples reported values above the Depot's established background value for arsenic of 3.18 mg/kg.

Explosives are not naturally occurring, and, therefore, do not have an established background value. Explosives were evaluated to determine whether they were present. Of the 22 samples collected only the 3 samples had one or more explosive compounds detected. All other samples did not have explosives present above the reporting limit (RL). The only compound with a reported result above its PRG was 2,4,6-trinitrophenylnitramine with a concentration of 18 mg/kg found in a single sample. The PRG for this compound is 16 mg/kg.

It is apparent that trace explosives may be found in soil that is in direct contact with a DMM item or left in the soil after a munitions item has been blown-in-place (BIP). However, the trace amounts of explosives do not appear to be a threat to worker safety or the environment based on the results of the sampling conducted as part of the Dry Lake Area EE/CA effort.

Hazard Communication: Presently, bilingual warning signs have been installed along the northern, southern and western borders of the Dry Lake Area. However, additional ICs are recommended for all sectors of the Dry Lake Area and include:

- Installation of two educational bilingual (English and Spanish) display cases are recommended to be installed in high-traffic areas adjacent to the Dry Lake Area.
- Development of informational pamphlets, which will be available at both display case locations.
- Briefing of the Restoration Advisory Board (RAB) on community awareness of munitions hazards.
- Notification of local landowners.
- Implementation of a land use covenant.

The placement of the two bilingual display cases (in high traffic areas frequented by the public surrounding the Dry Lake Area) will both warn and educate the public concerning the potential explosive hazards associated with MEC at the Dry Lake Area. The RAB meetings will educate local residents/workers to the presence and the dangers associated with MEC. Informational pamphlets will detail the types of munitions demilitarized at the Former Honey Lake Demolition Range, the potential hazards associated with these types of munitions, and who to contact if MEC is found. Pamphlets will be available at both display case locations. Additionally, the land use covenant will be implemented by Lassen County so that future development (although unlikely) within the Dry Lake Area cannot proceed without an in-depth examination of the potential for exposure to MEC and the hazards associated with MEC in each specified area.

Analysis as to whether or not project activities would:

a. Create a significant hazard to the public or the environment throughout the routine transport, use or disposal of hazardous materials.

   Impact Analysis: It is not anticipated that chemical waste will be encountered. Ordnance removal is inherently dangerous. Access to the area is restricted, and the public will not be allowed into the area. Materials that are deemed to be unsafe to transport will be destroyed in place. MEC that are safe to move will be stored in a secure temporary explosives magazine and will be transported to an offsite treatment facility at the completion of the project (Clean Harbors, Colfax, Louisiana). Non-hazardous scrap will be placed in secured containers for subsequent shipment to a scrap metal dealer in Daggett, California.

   The use of experienced personnel trained in handling and removal of ordnance will minimize the risk of an uncontrolled or accidental explosion. Work will also be conducted in accordance with Department of Defense (DoD) and USACE ordnance removal requirements. Also, access to the work site will be controlled and limited to authorized project personnel. In the event that unauthorized personnel enter the project area, work will cease until those personnel leave the area escorted by security. Radio and/or telephone communication will be maintained between all field personnel.

During all remedial activities, a Site Specific Health and Safety Plan (SSHP) will be developed and implemented to ensure that workers are notified of the hazards present at the site, as well as for them to plan for contingencies in the unlikely event of a detonation [see (b.) below). A site safety officer will be present on site and workers will be briefed (e.g., tail-gate meetings) on a daily basis of the hazards posed by MEC detection and removal activities. Provisions of the SSHP will include hearing protection, heat stress/ heat stroke prevention, first aid, and hazard communication. In addition, refer to the discussion below for a more detailed description of the SSHP provisions.

The project Site-Specific Safety and Health Plan (SSHP) will be developed during the remedial design phase and will be designed to comply with applicable federal Occupational Safety and Health Administration (OSHA), U.S. Army Corps of Engineers (USACE), and U.S. EPA regulations, and follows the guidelines established by the regulatory agencies in the following documents:

- Standard Operating Safety Guides, U.S. EPA, November 1984;
- Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute for Occupational Safety and Health (NIOSH) 85-115, 1985
- U.S. Army Corps of Engineers Manual EM 385-1-1 September 1996, *Safety and Health Requirements Manual*
- U.S. Army Corps of Engineers ER-385-1-92, Appendix H, Safety and Occupational Health Document Requirements for Hazardous Toxic and Radioactive Waste (HTRW) and Ordnance and Explosive Waste (OEW) Activities, 18 March 1994;
- Title 8 of the California Code of Regulations (CCR), Chapter 4, Subchapter 7, General Industry Safety Orders (GISO), with special attention to 8 CCR Section 5192, Hazardous Waste Operations and Emergency Response;
- Title 29 of the CFR Part 1910, OSHA, with special attention to Section 1910.120, Hazardous Waste Operations and Emergency Response;
- 40 CFR Part 300, National Oil and Hazardous Substances Contingency Plan; and
- DOD Ammunition and Explosives Safety Standards, DOD 6055.9-STD.

The SSHP will be implemented by the contractor's Site Manager at the project site. This includes communicating site requirements to all personnel, ensuring that field supervisors and subcontractors enforce all provisions of this SSHP, working with the Site Safety Officer (SSO) to implement all elements of the SSHP, and consulting with the Health and Safety Professional regarding changes to the SSHP. Other health and safety-related responsibilities will include the following:

- Reading and becoming familiar with this SSHP;
- Enforcing this SSHP and other safety regulations;
- Stopping work, as required, to maintain personnel and environmental health and safety;
- Determining evacuation routes, establishing and posting local emergency telephone numbers, and arranging emergency transportation;
- Ensuring that all project site personnel and visitors have received the proper training and medical clearance prior to entering the site;
- Ensuring that tailgate safety meetings are being conducted and attendance logs and records are being maintained;
- Discussing potential health and safety hazards with the designated Health and Safety Professional and the Task Order Manager (TOM); and
- Implementing changes as directed by the TOM and approved SSHP addenda.

Each removal grid will either be mechanically excavated and sifted utilizing a remote control scraper or it will be surveyed using handheld geophysical methods and all anomaly locations will be intrusively investigated to a depth of 1 foot below ground surface. Ordnance sweep teams will consist of unexploded ordnance (UXO)-qualified personnel, and each team will consist of an UXO Supervisor and multiple UXO Techicians.

Near-surface anomaly sources are those that are partially exposed or that are suspected to be within 1 foot of the surface and that can be excavated using hand tools. These anomalies will be excavated by carefully removing the earth overburden using a hand shovel/trowel or other small digging implement. Throughout the excavation, the UXO Specialists will use a variety of hand held instruments to check and verify the proximity of the anomaly. Because of the age and because historic site activities consisted of open burn/open detonation (disposal) of bombs, nearly all anomalies will be munitions debris (scrap metal) and not MEC.

If a MEC item is located, a determination will be made if the item is safe to move. If the item is unsafe to move, it will be destroyed in place by open detonation. If the item is safe to move, it will be removed and transported to a secure explosives storage magazine where it will be held until it can be safely transported to an approved off-site treatment/disposal facility at the conclusion of the project.

Prior to the start of open detonation disposal activities, the SSO will verify that the area around the operating site is clear of all nonessential personnel, and that other UXO supervisors have been notified. Minimum distances of 1,250 feet (non-fragmenting), 2,500 feet (fragmenting), and 4,000 feet (bombs and projectiles greater than 5 inches in diameter) will be established and maintained in the vicinity of the operating site. Depending on the type of munitions being destroyed, the fragmentation distance may be increased or decreased with the approval of the USACE On-Site Safety Specialist). Personnel remaining on-site will be limited to those personnel needed to safely and efficiently prepare the item(s) for destruction. Engineering controls for blast and fragment mitigation are not anticipated; however, they may be required for destruction of specific MEC items.

A temporary, non-hazardous MEC scrap collection point at the entrance to the project area or at some other designated point will be established. During field operations, MEC scrap items that are free of explosive contamination will be placed at this collection point. All inspected scrap will then be transferred to a secure facility pending shipment to an offsite scrap metal dealer. The SSO and/or qualified SIAD personnel will perform additional material inspections to ensure that this material is free of explosives and other hazardous materials. All inert/empty MEC-related items will be vented as appropriate.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact Analysis:
Site Accessibility: The Dry Lake Area is not easily accessed and could be considered a remote area. There is no vehicle access from inside the boundaries of the Sierra Army Depot due to the recent realignment of the Depot boundaries and the installation of fencing along the new boundaries. Access from the north may be made by unpaved roads and trails in the vicinity of Amedee hot springs. Additionally, the lakebed can be accessed from the south by taking Pole Line Road and following the shoreline to the north approximately 6 miles. Access to the site from across the lakebed is not easy due to the soft sediment. Sometimes the lakebed is filled or semi-saturated with water, which acts as a deterrent for access into the area. Additionally, if the public were to access the site, signs have been installed warning of the possible presence of unexploded military ammunition within the Dry Lake.

An accidental detonation of ordnance material would be extremely unlikely. Members of the general public will not be exposed to such hazards. The project site is remote and isolated, and unauthorized personnel will not be allowed in the project area while remedial activities are underway.

Risk of Upset: For each of the DMM items recovered at the Dry Lake Area during the TCRA and EE/CA field investigation, an individual would have to perform a deliberate act to be exposed to DMM risk. In terms of sensitivity, DMM items that are classified as "very sensitive" are likely to detonate with very little effort (e.g., simple touch or movement). DMM items that are classified as "sensitive" are likely to detonate with moderate effort (e.g., dropping the item, striking it, driving over it, extreme heat exposure). DMM items classified as a "residual risk" are those that would require extreme effort (i.e., cutting the item, drilling into it, mutilating it, crushing it) to detonate. Although there were no UXO items recovered at the Dry Lake Area during the TCRA or EE/CA field investigation, a number of DMM items were destroyed in place for safety purposes because they could not be positively identified as being "safe to move." Most of the DMM items recovered during the TCRA and EE/CA field investigation were classified as "non-sensitive," and were considered a residual risk. "Non-sensitive" items will require substantial effort (e.g., cutting or drilling) to detonate.

In the unlikely event of an accidental detonation, the SSO will perform a thorough investigation of the incident. Results of the investigation and any data collected during the accident will be made available to the public. Any new procedures identified as a result of the investigation will be implemented during the remainder of the project. This evaluation will include consideration of a means to limit releases from any subsequent accidental detonations.

Also refer to the response to item a. A SSHP will be developed for the project.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact

☐ No Impact

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

Impact Analysis: The nearest schools are the Fort Sage Middle School and Herlong High School, which are located approximately 8 miles from the project site.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to public or the environment.

Impact Analysis: SIAD is a site listed pursuant to California Government Code Section 65962.5 because it is a site identified under California Health and Safety Code, division 20, section 25356 (Cortese List). However, as stated previously in this initial study, the removal of MEC and MEC-related items will result in a lowering in the potential hazards posed by such contaminants at SIAD. In addition, the proposed remedy will allow the site to be used as open space which would not otherwise be possible if the MEC remained. Therefore, this remedial action will not create a new or significant hazard to the public or the environment.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

e. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impact Analysis: Activities at the Site will not hamper local emergency response or evacuation plans. The USACE contractor conducting the work on site will contact SIAD security and other emergency personnel as required by the SSHP.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.
USACE, Methods for Predicting Primary Fragmentation Characteristics of Cased Explosives (HNC-ED-CS-S-98-1).

8. Hydrology and Water Quality

Project activities likely to create an impact:
•Investigation by excavation of individually identified items and larger areas with potentially higher concentrations of subsurface munitions-type items
•Treatment of collected items, that may include in-place detonation within a blast chamber or within a pit,
•Transportation of equipment

Description of Baseline Environmental Conditions:
Honey Lake is a closed basin intermittent lake that is fed by two major tributaries, the Susan River to the north and Long Valley Creek to the south. The lake is also fed by other minor sources that enter along the lake's western shore. There are no natural outlets to Honey Lake. The water level is regulated primarily by precipitation that occurs within the watershed (e.g., amount of snow in the Sierra Nevada and other surrounding mountain ranges), from irrigation run-off, and from evaporation from the lake and water pumped from Honey Lake to adjacent agricultural lands. Depth to groundwater at the

project site varies from approximately 8 to 17 feet bgs, depending on the season and location. No water supply wells are situated in the vicinity of the Former Honey Lake Demolition Range. The lake bed of Honey Lake is currently inundated with water.

Analysis as to whether or not project activities would:

a. Violate any water quality standards or waste discharge requirements.

Impact Analysis: There are no municipal water sources on, or near, the site. Excavation activities will not impact water quality and do not require waste discharge requirements.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficient in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Impact Analysis: Groundwater will not be used for the project. Water will be brought on site as needed for project operations such as for dust suppression.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.

Impact Analysis: All excavations will be back-filled to pre-existing grade. Therefore, there will be no alteration of drainage courses.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site.

Impact Analysis: Please refer to the response in item c. There will be no alterations to existing drainage courses.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

Impact Analysis: Minimal water will be used on-site, and it will not affect storm water drainage systems. Also, contaminated water is not expected to be generated by this project. However, any contaminated waters that may be generated will be containerized, characterized, and properly disposed.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

f. Otherwise substantially degrade water quality.

Impact Analysis: There will be no effect on existing or future water quality resulting from this project. Removal of contaminated items has the potential to improve water quality in the area. Please also refer to item e. above. Contaminated water that is generated from project activities will be properly handled and disposed.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

g. Place within a 100-flood hazard area structures which would impede or redirect flood flows.

Impact Analysis: No structures will be erected under this project.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Impact Analysis: There are no residents, structures, levees or dams in the project area.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

i. Inundation by sieche, tsunami or mudflow.

Impact Analysis: The project will not affect the natural cycle of water flow in the area, and the area is not subject to the above-listed events.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

9. Land Use and Planning

Project activities likely to create an impact:
Land use controls that will be applied to the property after EECA activities are complete

Description of Baseline Environmental Conditions:
Prior to Department of Defense use in 1931, the Honey Lake area was undeveloped or otherwise used for ranching and farming. The SIAD is comprised of two areas, the 33,153-acre Main Depot along the east shore of Honey Lake and the

3,897-acre open burn/open detonation (OB/OD) area to the northeast of the Main Depot, totaling approximately 37,060 acres. The SIAD formerly controlled the 60,108-acre Honey Lake immediately adjacent to the west boundary of the Main Depot. Currently, the surrounding area is zoned for agriculture/open space.

Currently, specific areas of the Depot are used for military activities, while other areas have been disposed of through BRAC. The majority of land surrounding the Depot continues to be undeveloped, with limited residential development along the southwest boundary of the Main Depot.

The Dry Lake Area of the Former Honey Lake Demolition Range consists of 4,486 acres of undeveloped land on the northwest perimeter of the Depot. Most, if not all, of the Dry Lake Area is flooded when the lake has water, from a depth of a few inches to no more than 3-feet. The dry lakebed is devoid of physical structures, topography, and vegetation. Local residents can use the area for recreational purposes when the lakebed is relatively dry (i.e., not filled with water). In the past and during dry periods, local residents used the lakebed as a short cut between Herlong/Patten Village and communities located to the north and west such as Susanville and Wendel or between Milford and Wendel. Very limited recreational boating occurs when the lake is full.

Based upon information provided by local stakeholders and environmental impact reports developed for the Wendel area, future land use for the Dry Lake Area was evaluated in terms of its likelihood of involving public access and intrusive activities that would result in excavation of the soil, potentially exposing the public to DMM. Because the area is a dry lakebed that is periodically filled with water, digging into the subsurface is not anticipated. The area will remain as an intermittent lake and will be considered as open space with no future plans for any type of physical development. However, the adjacent East Shore BRAC Parcel could be opened to the construction of a new county road, which may result in greater public access to the Dry Lake Area.

Because it is not practicable to remove all MEC within the entire Dry Lake Area, land use controls will be necessary to prevent the public from inadvertently contacting MEC that may be exposed due to wind and water erosion in the future. Land use controls are intended to compliment the chosen remedial objectives and any proposed/existing institutional controls (for example, community awareness meetings, installation of educational displays, and distribution of informational pamphlets). Land use controls anticipated for the Dry Lake Area once the MEC remedial activities are completed and the land is transferred may include, but are not limited to: deed restrictions and/or a Land Use Covenant (LUC) to limit excavation in the Dry Lake Area, prohibitions/restrictions on the development of the site for sensitive uses (for example, day care facilities, schools, hospitals), routine monitoring, reporting and enforcement of the institutional and land use controls to ensure compliance, delineation of entities responsible for implementation and funding for LUC compliance, and 5-year reviews to assess institutional and land use control adherence.

This project will not result in cumulative adverse impacts upon land use or planning of the area. The goal of this project is to reduce the potential risks from human interaction with MEC materials, and to characterize the subsurface environment for the presence of OE. Completion of these remedial activities will not change the current zoning or land uses of the subject area.

Analysis as to whether or not project activities would:

a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

   Impact Analysis: The project area is located within a United States Army installation. There are no land use plans, policies, or agency regulations applicable to this site.

   Conclusion:
   ☐ Potentially Significant Impact
   ☐ Potentially Significant Unless Mitigated
   ☐ Less Than Significant Impact
   ☒ No Impact

b. Conflict with any applicable habitat conservation plan or natural community conservation plan.

   Impact Analysis: Please see response to item a. above.

   Conclusion:
   ☐ Potentially Significant Impact
   ☐ Potentially Significant Unless Mitigated

☐ Less Than Significant Impact
☒ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

10. Mineral Resources

Project activities likely to create an impact:
None

Description of Baseline Environmental Conditions:
The Former Honey Lake Demolition Area is located along the western boundary of Sierra Army Depot (SIAD), on the northeast portion of Honey Lake. SIAD conducted demolition and burning of excess, unserviceable, and/or obsolete munitions following World War II. The first documented demolition activity on the Honey Lake bed occurred in 1945. Use of the dry lake bed for demolition and burning continued into the 1950's, possibly as late as 1958. Items to be destroyed were stacked together on the lake bed, explosive charges were attached to the munitions, and the items were detonated. The resulting explosion resulted in the destruction of the waste munitions, and the creation of large amounts of scrap metal that have been "kicked out" onto the area surrounding the lake, which comprises the project area. However, some items may not have been destroyed entirely, and partially destroyed munitions and scrap metal containing residues of explosive material have been created as a result.

This project will have no adverse impacts upon the mineral resources of the area. No natural resources are known to exist in the project area. For these reasons, no further analysis is deemed necessary.

Analysis as to whether or not project activities would:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

   Impact Analysis: As stated above, no further analysis is deemed necessary.

   Conclusion:
   ☐ Potentially Significant Impact
   ☐ Potentially Significant Unless Mitigated
   ☐ Less Than Significant Impact
   ☒ No Impact

b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

   Impact Analysis: As stated above, no further analysis is deemed necessary.

   Conclusion:
   ☐ Potentially Significant Impact
   ☐ Potentially Significant Unless Mitigated
   ☐ Less Than Significant Impact
   ☒ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

11. Noise

Project activities likely to create an impact:
•Treatment of collected items, that may include in-place detonation within a blast chamber or within a pit,

Description of Baseline Environmental Conditions:

The Former Honey Lake Demolition Range –Dry Lake Area is located along the northwestern boundary of Sierra Army Depot (SIAD), within the lake bed of Honey Lake. The dry lakebed is devoid of vegetation as it is periodically covered with water. However, during prolonged dry periods, desert salt grass begins encroaching on the lakebed typically on the eastern shoreline. This east shore area also consists of sagebrush/rabbit brush/greasewood plant communities. Various animals, such as birds, ground squirrels, lizards, and amphibians inhabit the area. Some portions of the area have been used for ordnance testing and have been subjected to clearing and grading activities, and have little or no vegetation. The majority of the area is lake bed. In addition, the area is isolated, with no inhabitants located within 5 miles.

Analysis as to whether or not project activities would:

a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact Analysis: The project is located in an isolated area. The use of hand tools or light mechanized equipment will not generate significant noise levels. The federal OSHA impulsive noise standard for workers is 140 decibels. The noise generated by the open detonation of a 155 mm shell (the largest type of item that has been found during past ordnance investigations of the area), has been calculated by the U.S. Army Corps of Engineers – Huntsville District not to exceed 140 decibels at a distance of 1550 feet. Similarly, for a 2000 pound bomb (the largest sized item that may be found), the 140 decibel limit will not be exceeded past a distance of 2250 feet. For the open detonation of these items, safety procedures prescribe an exclusion zone of 4,000 feet. Therefore, at that distance persons will not be exposed to excessive noise levels. Standard Operating Procedures for workers will specify the hearing protection requirements necessary to comply with applicable worker protection requirements.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels.

Impact Analysis: The nearest residences are approximately 5 miles from the project site. Attenuation by distance is anticipated to decrease the noise and vibration from potential destruction in place activities to acceptable levels. Vibration levels can be minimized by limiting the size of materials used for open detonation to the smallest amount possible.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project.

Impact Analysis: The project duration will be approximately three to six months. There will be no permanent impact on noise levels.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Analysis: Please refer to the response in item a. The noise generated from potential destruction in place activities is anticipated to be attenuated by distance and the use of engineering controls (sandbags).

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated

☒ Less Than Significant Impact
☐ No Impact

References Used:
DTSC, Initial Study for Former Honey Lake Demolition Range: East Shore Area Engineering Evaluation/Cost Analysis, Sierra Army Depot, Herlong, California, 2004.
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

12. Population and Housing

Project activities likely to create an impact:
None

Description of Baseline Environmental Conditions:
The population of Lassen County has grown steadily since 1970. According to the 2000 U.S. Census Bureau, the county's population increased 22.6 percent between 1990 and 2000. During the same period, the state's population grew by 13.6 percent. The county's population is projected to grow from 33,828 (year 2000) to 43,000 (year 2020).

The primary employers in the county are government agencies/facilities such as the Sierra Army Depot, High Desert State Prison, and other federal, state, and local agencies. Approximately 52 percent of all county employment is based on federal, state, and local government agencies. Additionally, growth in employment in this area is anticipated once the Herlong federal prison facility is completed. Retail trades and service producing industries (e.g., educational institutions and health services organizations) comprise approximately 16 percent and 13 percent of the county employment demographics, respectively. Agriculture (3 percent), manufacturing/goods production (9 percent), transportation and public services (3 percent), wholesale trade (2 percent), and finance, insurance, and real estate (2 percent) make up the remaining 19 percent of Lassen County employment.

Growth in countywide employment between 1999 and 2006 is estimated to be 9.5 percent, including a 10.1 percent increase in the government sector and a 9.7 percent increase in the service-producing sector.

The SIAD is adjacent to the unincorporated community of Herlong in the Honey Lake area of Lassen County. The majority of land surrounding the SIAD is undeveloped. Some limited residential development exists along the southwest boundary of the Main Depot area. The nearest housing to the project area is located approximately 5 miles away.

This project will have no adverse impacts upon population and housing in the area; therefore, no further analysis is deemed necessary.

Analysis as to whether or not project activities would:

a. Induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

   Impact Analysis: The Dry Lake Area is unsuitable for development as it is an intermittent lake. Cattle ranching and grazing by a few local ranchers to the north and east of the Dry Lake Area are currently the predominant land uses in the immediate vicinity. The State Lands Commission plans to make the lakebed public lands. The public has access to the entire site, although there is nothing to attract the public to visit the site (e.g., lack of recreational facilities).

   There are currently no plans to develop the Dry Lake Area; therefore, there is no anticipated increase in the public attraction to this area. Additionally, a TCRA has been completed which removed DMM, MD, and non-MD from the surface for portions of the Dry Lake Area, and warning signs have been posted every 100 yards around of the Dry Lake Area. These signs warn the public of the possible presence of unexploded military ammunition in the area.

   Conclusion:
   ☐ Potentially Significant Impact
   ☐ Potentially Significant Unless Mitigated
   ☐ Less Than Significant Impact
   ☒ No Impact

b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

   Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

13. Public Services

Project activities likely to create an impact:
None

Description of Baseline Environmental Conditions:
Sierra Army Depot is an active U.S. military installation, and the U.S. Army is responsible for providing fire and police protection on the installation. Emergency services are not provided by any local entity. On site security and fire protection are provided by SIAD personnel. This project will not have any adverse impacts upon available public services; therefore, no further analysis is deemed necessary.

Analysis as to whether or not project activities would:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- Fire protection
- Police protection
- Schools
- Parks
- Other public facilities

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

14. Recreation

Project activities likely to create an impact:
None

Description of Baseline Environmental Conditions:
Land use at the Dry Lake Area is open space with no future plans to develop the area. Cattle ranching/grazing takes place north and east of the Dry Lake where grasses are present. Although there are no permanent recreational activities ongoing at the Dry Lake Area, recreational activities may occur within the Dry Lake Area. These activities mainly consist of motorcycle riding and "off-roading" with all terrain vehicles. These activities, although infrequent, have the potential to disturb the soft lake sediments in this area. In 2003, a TCRA was conducted in 2003 which removed all DMM, MD, and non-MD metallic items from approximately 2,600 acres of the surface of the lakebed. However, 131 acres of the OB/OD Sector and 298 acres of the Buffer Sector were not included in the TCRA; therefore, it is most likely that DMM which could pose a risk to the public may be located in the near subsurface (i.e., 0 inches to 6 inches) over these areas.

The project may have an affect on access to recreational activities conducted during periods that Honey Lake is assessable via water craft. However, site work can only be conducted when the Honey Lake lakebed is dry, a condition which would preclude the use of the project area to recreational boating activities. For these reasons, this project will not significantly impact recreational opportunities at Honey Lake. No further analysis is deemed necessary.

Analysis as to whether or not project activities would:

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

   Impact Analysis: This project will not have any adverse impacts upon recreational services or facilities in the area. The project area is located within an active United States Army installation.

   Conclusion:
   ☐ Potentially Significant Impact
   ☐ Potentially Significant Unless Mitigated
   ☐ Less Than Significant Impact
   ☒ No Impact

b. Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

   Impact Analysis: No recreational facilities will be constructed as part of this project.

   Conclusion:
   ☐ Potentially Significant Impact
   ☐ Potentially Significant Unless Mitigated
   ☐ Less Than Significant Impact
   ☒ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

15. Transportation and Traffic

Project activities likely to create an impact:
Temporary traffic impacts for delivery of project equipment and trucks hauling materials away from the Depot

Description of Baseline Environmental Conditions:
The area is very rural and isolated, and the project area is located within an active United States Army installation. Access to the area is controlled by SIAD security personnel.

There are several access points to the Dry Lake Area, including through the Airfield BRAC Parcel (east of the project site) or by a series of roads that cross private property to the northeast of the project site. When the lake is dry, access can be made into any region of the Dry Lake Area by driving across the lakebed. From the south, local residents can follow Pole Line Road out of Patten Village across the dry lake, a private road. There is no access to the Dry Lake Area through the SIAD.

This project will not have any significant adverse impacts to transportation and traffic in the area. Access to the project area will be through roads controlled and secured by SIAD security personnel. Permission must be obtained from the

SIAD security office, and identification must be shown in order to access the area. Any temporary increase in traffic on public roads caused by contractors working on this project will be minimal. Only materials that are deemed safe to move will be transported offsite for disposal. Items that are too dangerous to move will be destroyed in place.

Analysis as to whether or not project activities would:

a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

Impact Analysis: The project does involve a minor, short-term increase in vehicle traffic to allow project vehicles to access the site. Access to the site for the mobilization and demobilization of equipment may require the use of traffic controls.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

b. Exceed, either individually or cumulatively, a level of service standard established by the country congestion management agency for designated roads or highway.

Impact Analysis: As stated above, the increase in project-related traffic will be temporary and minimal.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Analysis: As stated above, the project will not result in design feature hazards or incompatible uses. SIAD roadways are used for various types of equipment and can accommodate project equipment.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

d. Result in inadequate emergency access.

Impact Analysis: Due to the more remote nature of this site from the main thoroughfares and gates, these remedial activities are not expected to impact daily traffic flow or emergency routes.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

e. Result in inadequate parking capacity.

Impact Analysis: There will be no impact on parking. Activities occur within the SIAD.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact

☒ No Impact

f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Impact Analysis: There will be no impact transportation plans or programs. Activities occur within the SIAD

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

16. Utilities and Service Systems

Project activities likely to create an impact:
None

Description of Baseline Environmental Conditions:
The project sites are located within the boundaries of an active U.S. Air Force base. There are no existing facilities on the lakebed because it periodically fills with water. Therefore, for these reasons no further analysis is deemed necessary.

Analysis as to whether or not project activities would:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

f. Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

g. Comply with federal, state, and local statutes and regulations related to solid waste.

Impact Analysis: As stated above, no further analysis is deemed necessary.

Conclusion:
☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used:
Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

Finding Of De Minimis Impact To Fish, Wildlife And Habitat (Optional)[1]

A de minimis finding is not sought for this project.

The following provides substantial evidence as to why the project will have **no potential for adverse effect** on the listed resources as defined by section 711.2 of the Fish and Game Code:

a. Riparian land, rivers, streams, watercourse, and wetlands under state and federal jurisdiction.

Discussion:

Finding:

[1] Complete only if a Finding of De Minimis Impact to fish, wildlife and habitat is proposed in lieu of payment of the Department of Fish and Game Notice of Determination filing fee required pursuant to section 711.4 of the Fish and Game Code. A finding of "no potential adverse effect" must be made to satisfy the requirements for the Finding of De Minimis Impact as required by title 14, California Code of Regulations, section 753.5.

☐ No potential for adverse effect.

b. Native and non-native plant life and the soil required to sustain habitat for fish and wildlife.

Discussion:

Finding:

☐ No potential for adverse effect.

c. Rare and unique plant life and ecological community's dependent on plant life.

Discussion:

Finding:

☐ No potential for adverse effect.

d. Listed threatened and endangered plant and animals and the habitat in which they are believed to reside.

Discussion:

☐ No potential for adverse effect.

e. All species of plant or animals as listed as protected or identified for special management in the Fish and Game Code, the Public Resources Code, the Water Code, or regulation adopted there under.

Discussion:

Finding:

☐ No potential for adverse effect.

f. All marine and terrestrial species subject to the jurisdiction of the Department of Fish and Game and the ecological communities in which they reside.

Discussion:

Finding:

☐ No potential for adverse effect.

g. All air and water resources the degradation of which will individually or cumulatively result in a loss of biological diversity among the plants and animals residing in that air and water.

Discussion:

Finding:
☐ No potential for adverse effect.

Mandatory Findings of Significance

Based on evidence provided in this Initial Study, DTSC makes the following findings:

a. The project ☐ has ☒ does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

b. The project ☐ has ☒ does not have impacts that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed

in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

c. The project ☐ has ☒ does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Determination of Appropriate Environmental Document

Based on evidence provided in this Initial Study, DTSC makes the following determination:

☒ The proposed project COULD NOT HAVE a significant effect on the environment. A **Negative Declaration** will be prepared.

☐ The proposed project COULD HAVE a significant effect on the environment. However, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared.

☐ The proposed project MAY HAVE a significant effect on the environment. An **Environmental Impact Report** is required.

☐ The proposed project MAY HAVE a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed.

☐ The proposed project COULD HAVE a significant effect on the environment. However, all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier Environmental Impact Report or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project. Therefore, nothing further is required.

Approvals:

Francesca D'Onofrio		7/13/2006
Preparer's Signature		Date
Francesca D'Onofrio	Hazardous Substance Scientist	(916) 255-3603
Preparer's Name	Preparer's Title	Phone #
Branch Chief Signature		Date
Anthony J. Landis, P.E.	Branch Chief, Office of Military Facilities, Northern California Operations	(916) 255-3732
Branch Chief Name	Branch Chief Title	Phone #

ATTACHEMENT A

REFERENCES

American Technologies, Inc., Final Site-Specific Final Report (Revision 1), Ordnance and Explosive (OE) Response Action, Sierra Army Depot, East Shore Honey Lake BRAC Parcels, Herlong, California, March 21, 2005.

California Department of Fish and Game, Natural Diversity Database Rarefind, Herlong, Wendell, and Wendell Hot Springs Quadrants, June 16, 2006.

DTSC, Initial Study for Former Honey Lake Demolition Range: East Shore Area Engineering Evaluation/Cost Analysis, Sierra Army Depot, Herlong, California, 2004.

Electronic Mail from Kenneth R. Smith of Lassen County Air Pollution Control District to Charles Ridenour, DTSC, May 10, 2006.

Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.

Letter, "Informal Endangered Species Consultation of the Proposed Transfer of the East Shore Parcel, Lassen County, California, from the Sierra Army Depot to the County of Lassen, from U.S. Fish and Wildlife Service (Sacramento Office) to Colonel Paul R. Plemmons (Sierra Army Depot), December 9, 2002.

Letter, "Informal Endangered Species Consultation of the Proposed Ordnance and Explosive Response Actions on the Sierra Army Depot, Lassen County, California, from U.S. Fish and Wildlife Service (Sacramento Office) to Colonel Paul R. Plemmons (Sierra Army Depot), December 20, 2002.

Owling.com: http://owling.com, June 28, 2006.

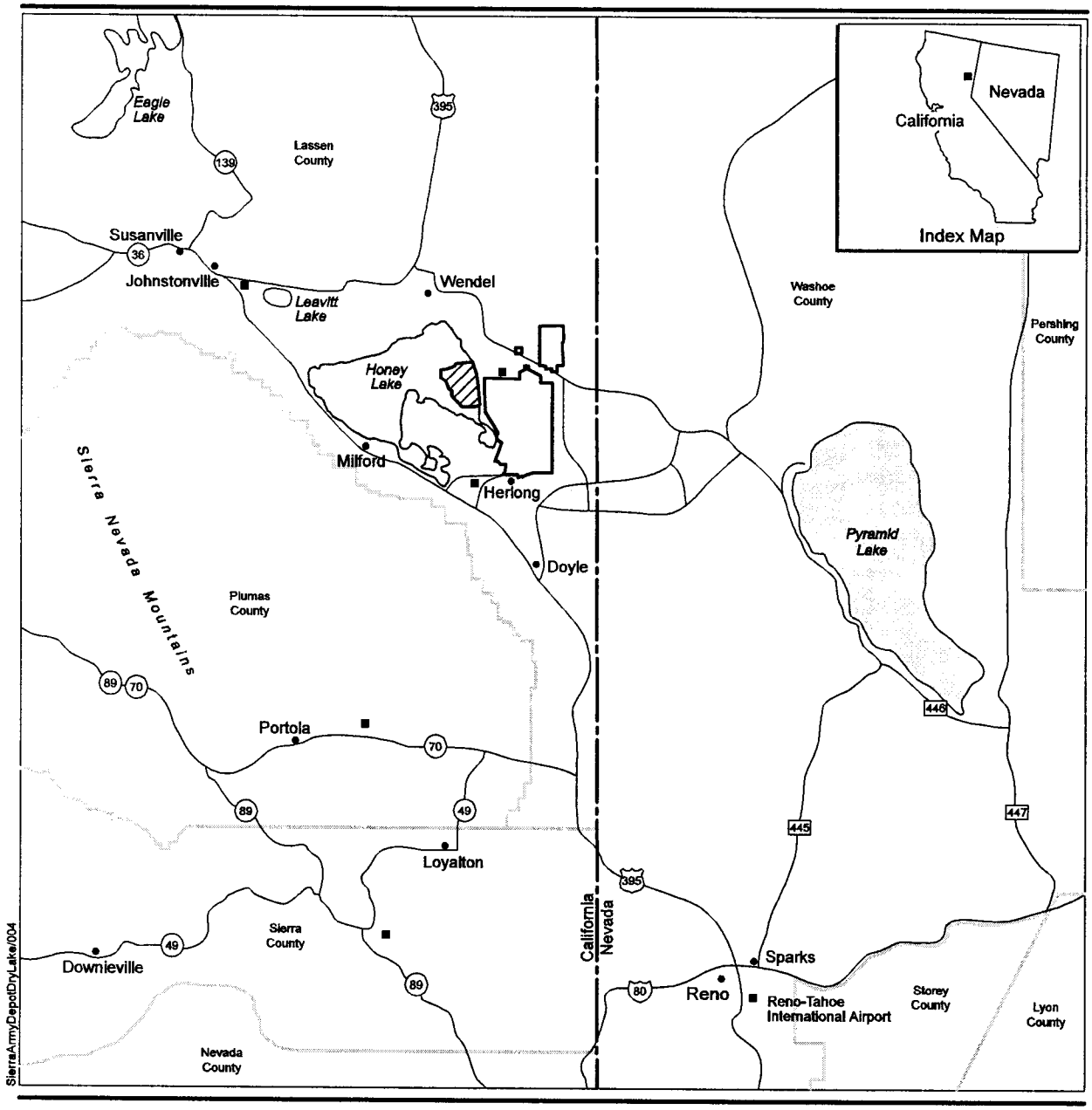
USACE, Methods for Predicting Primary Fragmentation Characteristics of Cased Explosives (HNC-ED-CS-S-98-1).

USACE, Sacramento District, Final Environmental Assessment, Transfer of Honey Lake, Sierra Army Depot, Herlong, California, September 2003.

USACE Web Site: http://www.usace.army.mil/inet/functions/cw/cecwo/reg/nwpcond.htm

ATTACHMENT B

FIGURES



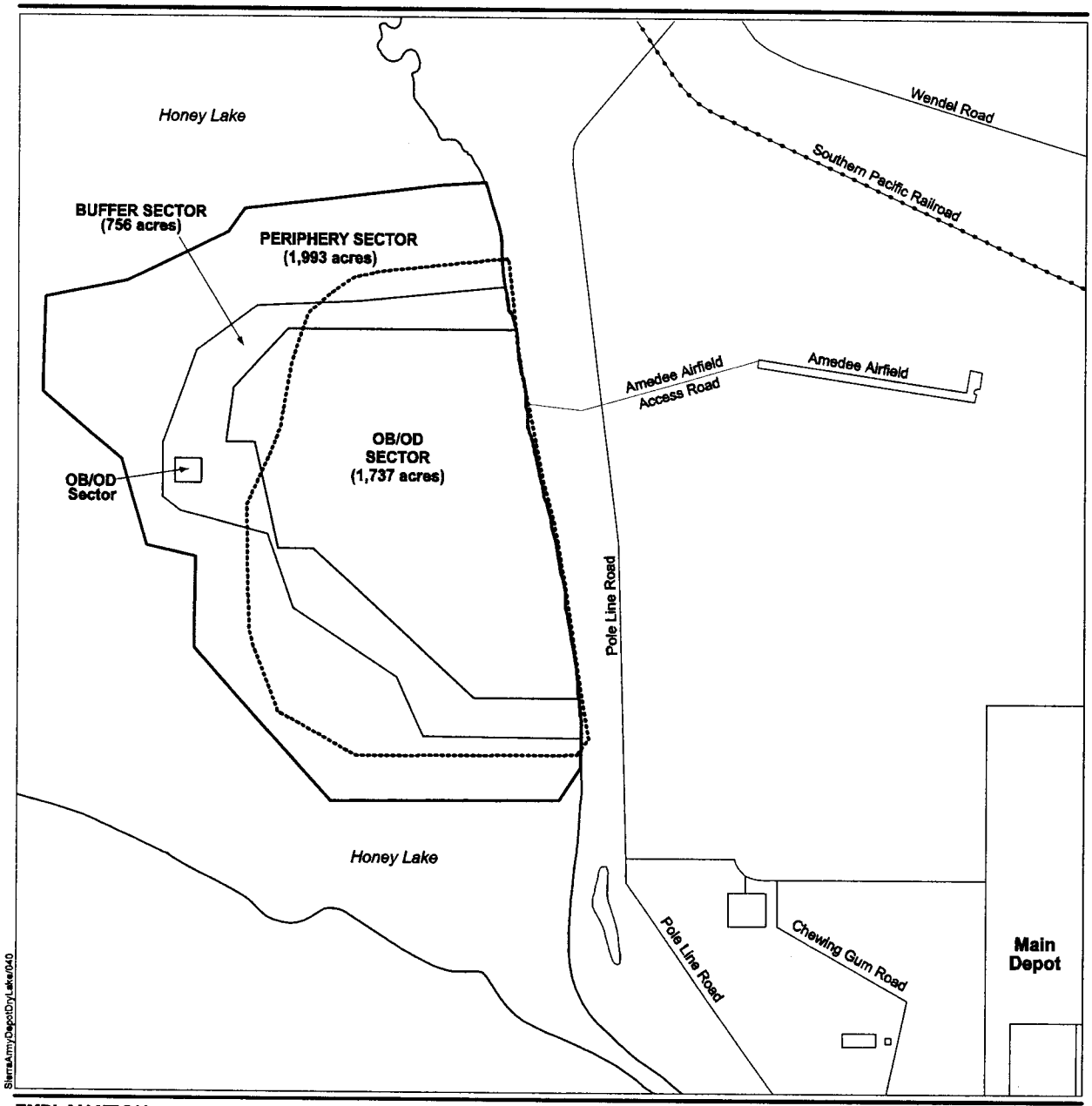
EXPLANATION

- County Boundary
- State Boundary
- Interstate Highway
- U.S. Highway
- California State Highway
- Nevada State Highway
- Sierra Army Depot Boundary
- Sierra Army Depot
- Dry Lake Area
- Honey Lake
- Airports

0 3 6 12 Miles

Regional Map

Figure 1



EXPLANATION

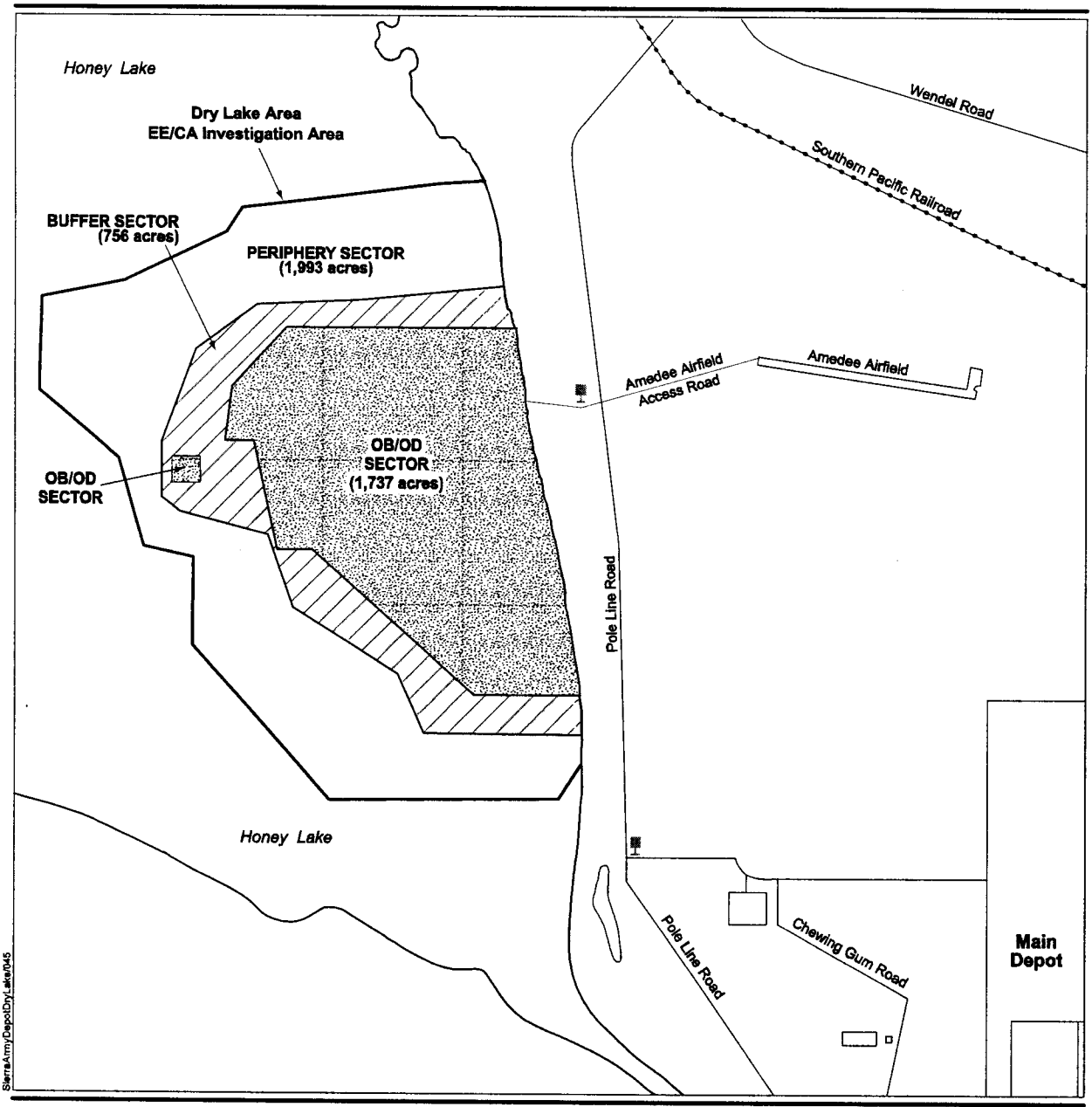
- Dry Lake EE/CA Investigation Area (4,486 acres)
- EE/CA Sector Boundary
- TCRA Boundary (2,599 acres)

EE/CA Engineering Evaluation/Cost Analysis
OB/OD Open Burn/Open Detonation
TCRA Time Critical Removal Area

TCRA and EE/CA Sector Boundaries

0 .25 .5 1 Mile

Figure 2



EXPLANATION

- Dry Lake EE/CA Investigation Area (4,486 acres)
- Surface Clearance of DMM (756 acres)
- Subsurface Clearance of DMM to 1-foot (1,737 acres)
- Proposed Display Case Location
- DMM Discarded Military Munitions
- EE/CA Engineering Evaluation/Cost Analysis
- OB/OD Open Burn/Open Detonation

0 .25 .5 1 Mile

Note: (1) Institutional Controls including display cases, community awareness meetings, information brochures and land use/ zoning restrictions.
(2) Warning signs are already in place around the Dry Lake Area.

Recommended MEC Response Actions

Figure 3

ATTACHMENT C

Endangered and Threatened Species that ay occur on or near Sierra Army Depot

Common Name	Scientific Name	Federal Status	California Status	Habitat at Former Honey Lake Demolition Range
Listed Species				
Mammals				
California wolverine	*Gulo gulo luteus*	SC	T	No known habitat within EE/CA area; found along timberline.
Sierra Nevada red fox	*Vulpes vulpes necator*	SC	T	No known habitat within EE/CA area; found in high mountain areas.
Birds				
Swainson's hawk	*Buteo swainsonii*	--	T	May use open areas in shrub communities along the east shoreline as foraging habitat.
Western snowy plover	*Charadrius alexandrius nivosus*	T	SC	May use sparsely vegetated alkali flats for nesting.
Little willow flycatcher	*Empidonax traillii brewsteri*	SC	--	No known habitat within EE/CA area; uses willow thickets in riparian areas.
American peregrine falcon	*Falco peregrinus anatum*	Delisted*	E	May use open areas in shrub communities along the east shoreline as foraging habitat.
Greater sandhill crane	*Grus canadensis tabida*	--	T	Wetland areas provide nesting and foraging habitat.
Bald eagle	*Haliaeetus leucocephalus*	T**	E	May forage in Honey Lake area during winter.
Bank swallow	*Riparia riparia*	--	T	No known habitat within EE/CA area; uses riverbanks and coastal bluffs for nesting.
Invertebrates				
Carson wandering skipper	*Pseudocopaeodes eunus obscurus*	E		Salt grass areas with adequate nectar sources (e.g., flowering plants) associated with Honey Lake.
Species of Concern				
Mammals				
Pygmy rabbit	*Brachylagus idahoensis*	SC	SC	Found in dense sagebrush or rabbitbrush; may use areas adjacent to the Depot.
Spotted bat	*Euderma maculatum*	SC	SC	Nocturnal; disturbance of possible roosting sites will not occur.
Sierra Nevada snowshoe hare	*Lepus americanus tahoensis*	SC	SC	No known habitat within EE/CA area; prefers thickets of fir, pine, or spruce forest.
Pacific fisher	*Martes pennanti pacifica*	SC	SC	No known habitat within EE/CA area; uses pine and fir forests.
Small-footed myotis bat	*Myotis ciliolabrum*	SC	--	Nocturnal; disturbance of possible roosting sites will not occur.

Endangered and Threatened Species that may occur on or near Sierra Army Depot

Common Name	Scientific Name	Federal Status	California Status	Habitat at Former Honey Lake Demolition Range
Long-eared myotis bat	*Myotis evotis*	SC	--	Nocturnal; disturbance of possible roosting sites will not occur.
Fringed myotis bat	*Myotis thysanodes*	SC	--	Nocturnal; disturbance of possible roosting sites will not occur.
Long-legged myotis bat	*Myotis volans*	SC	--	Nocturnal; disturbance of possible roosting sites will not occur.
Yuma myotis bat	*Myotis yumanensis*	SC	--	Nocturnal; disturbance of possible roosting sites will not occur.
Townsend's western big-eared bat	*Corynorhinnus townsendii townsendii*	SC	SC	Nocturnal; disturbance of possible roosting sites will not occur.
Birds				
Northern goshawk	*Accipiter gentilis*	SC	SC	May use open areas in shrub communities along east shoreline as foraging habitat.
Tri-colored blackbird	*Agelaius tricolor*	SC	SC	May use marsh and wetland areas for foraging and nesting.
Burrowing owl (Burrowing sites)	*Athene cunicularia*	SC	SC	Known to occur depot-wide; often uses ground squirrel burrows for nesting.
Ferruginous hawk (wintering)	*Buteo regalis*	SC	SC	May use open areas in shrub communities along east shoreline as foraging habitat.
Mountain plover	*Charadrius montanus*	FPT	SC	No nesting habitat within EE/CA area; may migrate through area.
Western least bittern (nesting)	*Ixobrychus exilis hesperis*	SC	SC	No known habitat within EE/CA area; prefers dense vegetation of freshwater marsh.
White-faced ibis (rookery site)	*Plegadis chihi*	SC	SC	May use open areas in shrub communities along the east shoreline as foraging habitat.
Amphibians				
Foothills yellow-legged frog	*Rana boylii*	SC	SC	No known habitat within EE/CA area; prefers gravelly or sandy streams in open woodland.
Reptiles				
Northern sagebrush lizard	*Sceloporus graciosus graciosus*	SC	--	Associated with sagebrush found in areas with open ground and scattered bushes.
Invertebrates				
Amphibious caddisfly	*Desmona bethula*	SC	--	Uses quiet waters of streams and marshes; EE/CA activities did not take place in the water.

Endangered and Threatened Species that may occur on or near Sierra Army Depot

Common Name	Scientific Name	Federal Status	California Status	Habitat at Former Honey Lake Demolition Range
Plants				
Modoc bedstraw	*Gallium glabrescens* ssp. *modecense*	3C	1B[(a)]	No known habitat within EE/CA area; prefers gravelly slopes and talus.

Notes:
* = Delisted species are monitored for 5 years
** = Federally proposed for consideration of being delisted
(a) = California Native Plant Society Status
1B = Rare and endangered in California and elsewhere
3C = Widespread
E = Endangered
FPT = Federally proposed for threatened status
SC = Species of Concern
T = Threatened

Source: Earth Tech, Inc., Volume II Engineering Evaluation/Cost Analysis, Former Honey Lake Demolition Range – Dry Lake Area, Sierra Army Depot, Lassen County, California, June 2006.